

**United States Environmental Protection Agency Region III
Corrective Action Program**

ENVIRONMENTAL INDICATOR INSPECTION REPORT

**Former Whittaker Corporation
Trojan Yacht Division**

**167 Greenfield Road
Lancaster, PA 17601
USEPA ID # PAD 052922556**

**Prepared for
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GLOSSARY OF ACRONYMS

AOC	Area of Concern
AST	Aboveground Storage Tank
BGS	Below Ground Surface
BMDL	Below Method Detection Limit
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
BTI	Bertram-Trojan Incorporated
EI	Environmental Indicator
EPI	Environmental Priorities Initiative
GC/FID	Gas chromatograph with a Flame Ionization Detector
GPD	Gallons Per Day
J&E	Johnson & Ettinger
MEK	Methyl Ethyl Ketone
MSC	Medium-Specific Concentration
NOC	Not of Concern
NOV	Notice of Violation
OSHA	Occupational Safety and Health Administration
PADEP	Pennsylvania Department of Environmental Protection
PADER	Pennsylvania Department of Environmental Resources (precursor to the PADEP)
PaGWIS	Pennsylvania Groundwater Information System
PAR	Preliminary Assessment Report
PCB	Polychlorinated Biphenyl
PCE	Tetrachloroethene
PID	Photographionization Detector
PPM	Parts Per Million
RCRA	Resource Conservation and Recovery Act
SCRO	Southcentral Regional Office (of the PADEP)
SOW	Scope of Work
SWMU	Solid Waste Management Unit
TCL	Target Compound List
TPH	Total Petroleum Hydrocarbons
TSD	Treatment, Storage, and Disposal facilities
URS	URS Corporation
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground Storage Tank
VOC	Volatile Organic Compound
WCTYD	Whittaker Corporation – Trojan Yacht Division

DISCLAIMER

This Environmental Indicator Inspection Report for the former Whittaker Corporation – Trojan Yacht Division Site is not to be used as the basis for final design, construction or remedial action, or as a basis for major capital decisions. Background/historical information and other data, which URS has used in preparing this report, have been furnished by the United States Environmental Protection Agency, Pennsylvania Department of Environmental Protection, and/or third parties. URS has relied on this information as furnished, and is neither responsible for, nor has confirmed, the accuracy of all of the historical information. This report is based on data, site conditions, and other information collected from September 2008 through November 2009, and the conclusions and recommendations herein are therefore applicable to that time frame.

1.0 INTRODUCTION

The United States Environmental Protection Agency's (USEPA's) Land and Chemicals Division, Office of Resource Conservation and Recovery Act (RCRA) Programs previously used the voluntary corrective action program for hazardous waste management facilities under USEPA Permits/Orders. This program was recently expanded to address low and medium priority facilities in Region III, which includes facilities that may not be under USEPA or Pennsylvania Department of Environmental Protection (PADEP) Permits/Orders. Voluntary corrective action program objectives are similar to corrective action program objectives for facilities under USEPA/PADEP Permits/Orders.

URS Corporation (URS) was contracted by the PADEP to gather relevant information in order to determine whether human exposures to site-specific wastes and/or groundwater releases have been controlled through interim measures or through State-ordered final remedies for several unaddressed medium/low priority facilities in Region III, including the former Whittaker Corporation – Trojan Yacht Division (WCTYD) facility ('Facility') or site ('Site'). The Facility is located at 167 Greenfield Road in East Lampeter Township, Lancaster County, Pennsylvania.

For this scope of work (SOW), URS assembled pertinent information to aid the USEPA and the PADEP in evaluating the nature and extent of releases of hazardous wastes, evaluate facility and site characteristics, and comment on the selected corrective action measure or measures to be employed at the Facility to protect human health and the environment.

1.1 Regulatory Agency File Reviews

URS conducted an extensive records search at the PADEP Southcentral Regional Office (SCRO) file room, results of which include a scanned library of the PADEP documents that are provided on compact disc in **Appendix A**. In addition, copies of records acquired from the USEPA Region III Philadelphia Office were reviewed. Pertinent USEPA documents were photocopied and have been retained in URS' files, but at the USEPA's request, have not been included in this report. A list of documents reviewed is presented in **Appendix A** and references to these documents are noted (via superscript text) throughout this report.

1.2 Site Visit

A visit of the Site was conducted on June 29, 2009. Participants of the meeting included representatives from the USEPA, the PADEP, the current owner, and URS. The participants are listed in **Table 1**. URS, the PADEP, and the USEPA presented the facility representatives with information regarding the USEPA Region III Corrective Action process, the Environmental Indicator (EI) Assessment Program, and the legislation driving this program. URS provided the facility representatives with a synopsis of the information collected from the regulatory agencies, while facility representatives provided the PADEP and URS with a tour of the Site, focusing on the areas of concern (AOCs) and solid waste management units (SWMUs) identified in the Preliminary Assessment Report (PAR) and during agency file reviews. Photographs were taken with permission of facility representatives and are provided in **Appendix B**. A summary of the former RCRA AOCs/SWMUs observed during the site visit is presented in Section 3. Also observed during the site visit were two above ground storage tanks (ASTs); 1) used for gasoline storage (**Appendix B, Photograph 18**) and 2) a double-lined tank which appears to contain fuel oil (**Appendix B, Photograph 21**). Registration of these tanks with the PADEP is not required based on the volume of the gasoline tank (less than 250 gallons) and contents of the fuel oil tank (less than 30,000 gallons heating oil used on the premises) (PADEP, 2007).

2.0 SITE SETTING AND OPERATIONAL HISTORY

2.1 Site Setting

The Site is situated on approximately 26 acres of land located 1-1/2 miles east of the Lancaster city limits in East Lampeter Township, Lancaster County, Pennsylvania. The Site is located on the United States Geological Survey (USGS) Lancaster and Leola, Pennsylvania 7.5-minute Topographic Quadrangles at 76° 15' 08" west longitude and 40° 02' 39" north latitude (**Figure 1**). Land use in the surrounding area is mainly agricultural and industrial as indicated by the 2005 aerial photograph presented as **Figure 2**. East Lampeter Township has an estimated population of 14,864 residents (Source: United States Census Bureau, 2006). The City of Lancaster, located northwest of the Site, has a population of 54,672 residents (Source: United States Census Bureau, 2006). The Facility is bounded on the east by Route 30. South of the Facility are Conrail Railroad tracks which are utilized by Amtrak. Along the western boundary of the Site is Greenfield Road. At the time of the site visit, several light industrial buildings were located along the northern property boundary. A railroad track is located at the northeast corner of the Site.

The main building has a footprint of approximately 130,000 square feet with office space located in the west end of the building and in the basement. A majority of the building is used as warehouse and storage space. Access to the Site is via Greenfield Road. A chain link fence surrounds portions of the Site. A former guardhouse at the entrance to the Facility is no longer in existence (**Figure 3**).

2.2 Site Background

Shippen Realty Partners purchased the Site, which was originally farmland, in 1952⁽⁸⁹⁾. The production building was built for Trojan Yacht in 1955 when the firm leased the Site for wooden pleasure boat production. The PAR states that "Trojan Yacht purchased the property in 1954". However, research indicates that Trojan Yacht leased the property and built the business on the leased property. Ownership of the business leasing the property has changed several times since production began. Trojan Yacht, the original operator of the Facility, owned the business until 1967 when Whittaker Corporation, located in Los Angeles, California took over^(60,89). Whittaker owned the operations until approximately 1983 when Bertram-Trojan Incorporated (BTI), a division of Bertrex Corporation based in Miami, Florida, bought the business. Bertrex Corporation was purchased by the investment group of G.L. Ohrstrom and Company in 1988. BTI operated at the Site until it closed in 1992⁽⁶⁶⁾. The construction of the boats began changing from wood to fiberglass in the late 1960's. By the 1980's only fiberglass boats were produced.

The manufacturing of yachts ceased in 1989 and the Site has remained unoccupied except for the production building and two smaller outbuildings. Two Phase II Environmental Site Assessments were performed, one in 1992 and another in 1994⁽⁹⁰⁾. In 2006 the property owner, Shippen Realty Partners, decided to pursue liability release under the Pennsylvania Land Recycling and Environmental Remediation Standards Act, Chapter 250, Administration of Land Recycling Program ('Act 2', June 1997) (25 Pa. Code §§250.1 - 250.708) (as revised November 24, 2001) to make the property more saleable. Continuous ownership of the property by Shippen Realty Partners since 1959 was confirmed by URS through the Lancaster County Assessment office on June 18, 2009.

2.3 Operational History, Including Wastes Generated and Their Management

The following section presents a brief history of the operations on-site including current site use. Also included in this section is permitting and inspection information.

2.3.1 Operational History

As presented in the PAR, Trojan Yacht developed the Site in 1955 as the manufacturer of wooden pleasure boats⁽⁶⁰⁾. The production of some fiberglass boats began in the late 1960s. By the 1980s all boats were made of fiberglass. The fiberglass processes required the use of toluene, methyl ethyl ketone (MEK) peroxide, and acetone, which were stored in the former raw solvent storage area prior to May 1989 when the hazardous waste storage building was constructed.

Waste products generated included acetone still bottoms, polyester resin, and polyester gel-coat. The polyester resin and polyester gel-coat are produced in the manufacturing process. Laboratory analyses of solidified sample of gel-coat revealed styrene to be the primary constituent, along with trace amounts of methyl methacrylate and di-n-butyl phthalate. The unsaturated polyester resin was also found to be primarily styrene, along with some cobalt and copper. Both the gel-coat and resin are catalyzed with MEK peroxide (approximately one percent by weight). Trojan Yacht began reclaiming the acetone waste in 1970 in the acetone reclaiming unit located in the raw solvent storage building. Hardened waste polyester resin and gelcoat was stored in the hazardous waste storage building prior to disposal. The Site permitting history is presented in **Table 2**.

According to site representatives, the Site was leased to A.H. Hoffman, Inc. from 1995 to 2006. A.H. Hoffman manufactured and processed plant and garden fertilizer as well as distributed potting soil from peat trucked in from bogs in the north. In 2006, Dean Landis Trucking began leasing the property for the storage and maintenance of tractor trailers (**Appendix B, Photographs 5 and 24**). Mobile office buildings (**Appendix B, Photograph 16**) and a concrete mixing facility (**Appendix B, Photographs 17 and 18**) were also observed on-site.

2.3.2 Permitting

In August 1980, WCTYD filed a Notification of Hazardous Waste Activity and on November 18, 1980, the Part A Hazardous Waste Permit Application was submitted to the USEPA^(2,3) (**Table 2**). On December 22, 1980, both forms were acknowledged by the USEPA⁽⁴⁾. The following waste categories were listed on the Part A Hazardous Waste Permit; F003 (acetone and acetone still bottoms), U160 (MEK peroxide), and U220 (toluene). The estimated annual quantities included 130,000 pounds of acetone, 12,500 pounds of toluene, and 900 pounds of MEK peroxide. Approximately 432 gallons per day (gpd) of acetone were reclaimed by distillation. The records submitted to the USEPA indicate that WCTYD was filing these documents for generation, transportation, and as a treatment, storage, and disposal (TSD) facility.

A formal request for the WCTYD's Part B application was made by PADER which was followed up with a Notice of Violation (NOV)⁽²⁰⁾. WCTYD notified PADER that the Part B application was not filed because it desired generator status only^(21,23). According to the PAR, PADER deleted WCTYD's interim status in January 1984⁽⁶⁰⁾.

2.3.3 Inspections

Based on files reviewed by URS, PADEP hazardous waste and storage inspections were conducted from 1981 through 2002. An inspection history is presented in **Table 3**. Hazardous waste inspections performed from 1983 to 1987 indicated improper labeling of drums and drums in poor condition which resulted in two NOVs, issued in 1986 and 1987⁽¹⁹⁾.

2.3.4 Air Quality Operations

Air Quality documents were not located or reviewed by URS during agency file reviews.

2.4 Previous Site Investigations

Several site investigations have been performed at the Facility. The most recent is the Act 2 investigation which resulted in an approved closure by the PADEP on October 28, 2008⁽⁹³⁾. A brief summary of each investigation is presented below.

2.4.1 Remedial Investigation/Response Action Report, May 10, 1987 – A. L. Simmons Consultants

A PADER site inspection on January 23, 1987, resulted in a NOV due to the observations of waste resins hardening on the ground. The PADER collected soil samples near the north fence where acetone and resin were observed on the ground surface. Estimated concentrations of toluene were 110 mg/kg and styrene at 150 and 200 mg/kg⁽²⁹⁾. On February 10, 1987, a NOV was issued by the PADER to WCTYD⁽³¹⁾. Because of the elevated concentrations, the ASTs located in this area (SWMU #3, Section 3.3) were moved into the raw solvent storage building and the contaminated soils were removed (**Figure 3**). Keystone Block Transportation of Reading, Pennsylvania was contracted by WCTYD to perform the remediation while A.L. Simmons of Richardson, Texas provided oversight. Excavation of soil began at the northeastern corner of the fenced area, around the perimeter of the previous waste storage area. Soil in the trench was monitored and, to a depth of three feet, PID reading of 30 to 40 parts per million (ppm) were recorded. Further excavation revealed levels of toluene at 150 ppm and in excess of 300 ppm. High levels of solvents were detected as deep as 10 feet below grade. Test pits dug 100 feet from the fence showed no contamination⁽⁶⁰⁾. Soil samples were collected at various locations within the trenches, analyzed for volatile organic compounds (VOCs), split between three laboratories (M.J. Reider, Lancaster Laboratories and PADER Bureau of Laboratories), and analyzed for toluene, styrene, acetone, and MEK. The results are presented in **Table 4**⁽⁴⁶⁾.

The contaminated soil was stockpiled on location. Approximately 400 tons of soil above 80 ppm were accumulated and required to be shipped to a hazardous waste landfill. At the end of March 1987, over 19 truckloads of contaminated soil had been transported to CECOS in Williamsburg, Ohio. Approximately 100 tons of soil was excavated with concentrations of 30 to 80 ppm. Landfarming of the soil was conducted by spreading the soil on the ground (six to eight inches deep), turning, stirring, and exposing it to sunlight and air. By repeating this procedure every two hours, concentrations of volatiles decreased to below acceptable levels within eight hours⁽⁴⁶⁾. High levels of toluene and acetone (approximately 600 to 800 ppm) were present in the soil six feet deep. Alternative disposal methods were discussed between A.L. Simmons, PADER, and Keystone Block due to the high cost of shipping the soil to Ohio. Consequently, thermal processing of the soil using a rotary kiln was agreed upon. The approximate location of the kiln is presented in **Figure 3**. Thermal processing began on April 26, 1987, with samples

being taken periodically to monitor the effectiveness of the operation. Analytical results for soil samples collected pre- and post-remediation are included in **Table 4**⁽⁴⁶⁾. Thermal processing of the soil was completed by April 30, 1987. Field notes presented in the “*Remedial Investigation/Response Action Report*” prepared by A.L. Simmons Consultants, indicate the total soil removal area to be 230 feet long by 40 to 50 feet wide and 3 to 15 feet deep^(46,60). The processed soil was used to fill the trench the following day^(46,60).

During the excavation of contaminated soils, grab groundwater samples were collected from the trenches and analyzed for VOCs. The results are presented in **Table 5**. Schematic diagrams of soil sample collection locations were located by URS in various field notes^(36,38,41).

On January 25, 1990, subsequent to the removal action and AST relocation from SWMU #3 to the raw solvent storage building, seven ASTs were registered with PADER by WCTYD (**Appendix C**)⁽⁶²⁾. The tanks sizes, installation dates, and contents reported on the registration form are listed below:

	Tank 001	Tank 002	Tank 003	Tank 004	Tank 005	Tank 006	Tank 007
Size (gallons)	5,000	5,000	1,000	1,000	275	275	275
Year of Installation	1970	1970	Not listed	Not listed	Not listed	Not listed	Not listed
Contents	Styrene	Styrene	Acetone	Acetone	Toluene	Toluene	Stoddart Solvent

As discussed in Section 3.3, information presented in the PAR indicates that one 2,000 gallon acetone AST and three 275 gallon toluene ASTs were located in the raw solvent storage area (SWMU #3) since the 1970s and these ASTs were relocated to the raw solvent storage area during the remedial action⁽⁶⁰⁾. URS was unable to resolve the discrepancy between the ASTs listed in the PAR versus those itemized on the 1990 registration form.

Subsequent inspections conducted by the PADEP in 1991 and 1992, indicated that WCTYD was closing their operations^(63,67). A site inspection conducted by the PADEP on June 6, 1996, indicated that all seven tanks had been removed and that A.H. Hoffman was the current occupant of the property⁽⁸⁴⁾. Tank closure documents were not located by URS during the recent file review or noted by the PADEP in their follow-up site visits^(85,86) (**Appendix C**).

2.4.2 Soil Gas Survey, October 24, 1988 – Target Environmental Services, Inc.

A soil gas survey was performed in October 1988 by Target Environmental Services, Inc. Analytical results presented in **Table 6** indicated the presence of several areas of concern (**Figure 4**)⁽⁵⁵⁾. Soil gas samples were collected at depths of four feet and analyzed using USEPA Method 602 for a gas chromatograph with a flame ionization detector (GC/FID). Volatile organic compounds, weathered gasoline, degreasers, xylene, toluene and MEK were identified. The report also identified additional site concerns including a 30-year old, 6,000-gallon gasoline underground storage tank (UST) (**Figure 3**) and compressors possibly containing polychlorinated biphenyls (PCBs) in the basement of the production building^(55,56,65). These results were discussed in an environmental site review performed by Carlos Stern and Mark Shultz Associates, issued on November 14, 1988⁽⁵⁶⁾. During the June 29, 2009 site visit, no compressors or staining were observed in the basement of the production building. The basement was observed to be unoccupied, competent and dry.

2.4.3 Preliminary Assessment Report (PAR), October 3, 1989 – NUS Corporation

As part of the USEPA contract no. 68-02-7346, an Environmental Priorities Initiative (EPI) preliminary assessment was performed in 1989⁽⁶⁰⁾. This included a site visit on May 15, 1989, where four SWMUs were identified (see Section 3). Waste materials of concern identified included motor oil and solvents, particularly acetone, toluene, MEK peroxide, and styrene. A waste gel-coat and polyester resin had also been present on-site. According to information included in the report and discussed above in Section 2.4.1, remedial activity was performed in 1987 with the removal of soil at the former waste storage area (SWMU #4) and the former raw solvent storage area (SWMU #3) (**Figure 3**).

2.4.4 Phase II Environmental Site Assessment, August, 1994 – RETTEW Associates, Inc.

As part of a Phase II Investigation, two sets of soil vapor samples were collected and test pits were dug. The first soil vapor screening survey was conducted by RETTEW in February 1992⁽⁷²⁾. Fifty-five vapor sampling locations were advanced to a depth of four feet below grade and total volatile concentrations were recorded with a photoionization detector (PID) (**Figure 5**). According to the report, no VOC concentrations were detected above background levels. In addition to the soil gas screening, nine test pits were dug in February 1992 to verify elevated VOC concentrations as determined by the Target Environmental Services, Inc. soil vapor survey of October 1988. The test pits were advanced to various depths, a discrete soil sample was collected from six of the nine pits, and analysis for Target Compound List (TCL) VOCs was conducted (**Table 7**). A test pit was also dug in the location of the former 6,000-gallon gasoline UST, a soil sample was collected, and analyses for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and xylene (BTEX) were conducted⁽⁷²⁾. A second soil vapor screening survey was performed by RETTEW in July 1994 in Lot 1⁽⁷²⁾. Lot 1 is a 3.5 acre tract of land located north of the site entrance (**Figure 3**). Twenty-nine soil vapor sampling locations were advanced to a depth of four feet below grade and total VOCs were measured with a PID (**Figure 6**). The Lot 1 vapor results indicated isolated anomalies beneath the asphalt (**Table 8**). A soil sample collected in this area and analyzed for TCL VOCs did not reveal detectable concentrations of volatiles⁽⁷²⁾. Five monitoring wells were installed as part of the Phase II Investigation; four in 1992 and one in 1994 (**Figure 7**). Monitoring well construction information is summarized in **Table 9**. Groundwater samples were collected and analyzed for TCL VOCs (**Table 10**).

2.4.5 Act 2 – Final Report, July 2008 – RETTEW Associates, Inc.

In 2006, the Site's owner, Shippen Realty Partners, decided to seek liability protection under Pennsylvania's Act 2 program⁽⁸⁹⁾. To that end additional monitoring wells were installed (MW-6 through MW-14) (**Table 9** and **Figure 7**) and three rounds of groundwater samples were collected (in March 2006, July 2007, and January 2008). Samples were analyzed for VOCs using USEPA Method SW-846 8260B. These analytical results were tabulated and compared to the analytical results from previously sampled monitoring wells (**Table 10**). Tetrachloroethene (PCE) was detected above the Act 2 Medium-Specific Concentration (MSC) for a Residential, Used Aquifer at least once in ten of the thirteen wells sampled. Acetone, 1,1-dichloroethene, cis-1,2-dichloroethene, MEK, styrene, toluene, ethylbenzene, methyl tert-butyl ether, and 1,1,1-trichloroethane were detected below the Act 2 MSCs for a Residential, Used Aquifer at least once in one or more of the thirteen wells sampled.

Test pits were dug in 2006 to assess if soil contamination was present in the area of the SWMUs (**Figure 8**). URS then compared the 2006 test pit analytical results to test pit results from 1992. With the exception of methylene chloride detected at TP-2, in 1992, acetone was the only constituent present above detectable limits in both 1992 and 2006 (**Tables 7 and 11**). All concentrations were below the Pennsylvania Direct Contact Values for Non-Residential soil.

A comparison of the 1992 test pit locations (originally documented in RETTEW's 1994 "*Phase II Environmental Site Assessment Report*") and the 2006 test pit locations was presented by RETTEW in their "*Letter Addendum to Final Report Act 2 Clearance*"⁽⁹²⁾. While the relationship of the 2006 and 1992 test pits presented in Table 10A of the 2006 letter report appears to be correct, the location of the 1992 test pits presented in Figure 5 of the 2006 letter report differs from the 1992 test pit locations presented in the 1994 RETTEW Phase II report. Test pits 94TP-8, 94TP-4, and 94TP-3 appear to be further east and 94TP-7 is missing on Figure 5 of the 2006 letter report versus as indicated in Figure 1 of the 1994 Phase II report. The approximate 1992 test pit locations shown on **Figure 8** of this report are taken from the 1994 Phase II report.

No soil samples were collected on the south side of the former production building where a previous MEK solvent storage area was located and where o-xylene and toluene were detected during the 1988 Target Environmental Services soil gas survey (**Table 4 and Figure 4**)⁽⁵⁵⁾. Toluene and xylenes were not present in groundwater samples collected from the monitoring well (MW-13) which is located in this area.

A fate and transport analysis was performed for the primary parameters discharged onto the ground surface in SWMU #s 3 and 4; acetone, toluene, MEK, and styrene⁽⁸⁹⁾. Concentrations of these constituents were below the Direct Contact Non-Residential Soil MSCs, the Soil-to-Groundwater Residential Used Aquifer MSCs, and the Residential Used Aquifer MSCs in both soil and groundwater samples collected in 2006. Statistical analyses of PCE and 1,1,1-trichloroethane for groundwater samples collected at MW-9 and MW-14 indicated decreasing trends for both compounds in both wells; the sentry well (MW-9) and the point of compliance well (MW-14). According to the Act 2 report, the sentry well is defined as the well located between former site activities potentially leading to contamination and the downgradient property boundary.

According to the Act 2 report WCTYD has no record of using or storing PCE on-site. PCE contamination is considered to be a regional issue (not attributed to site operations) and is present in on-site wells in non-increasing trends, with the exception of MW-13 which is an upgradient/sidegradient well.

On October 28, 2008, the Site owner was granted liability protection for soil and groundwater based upon attainment demonstration for these media of the Act 2 Residential Statewide Health Standards. As stated by the PADEP in their closure letter, conformance to the Act 2 requirements should not be understood to be indicative of pristine on-site conditions, but rather, conditions which are not in violation of the terms for Act 2 Statewide Health Standard attainment at the point of compliance⁽⁹³⁾. Act 2 was considered complete pending further earth disturbance or development requiring permits from the appropriate county soil conservation district. No restrictions were placed on land use or groundwater use.

3.0 DESCRIPTION OF SWMUS/AOCS AND KNOWN OR POTENTIAL RELEASES

A PAR for the Site was issued on October 3, 1989, following a site visit by NUS personnel on May 15, 1989⁽⁶⁰⁾. In the PAR, the following four SWMUs were identified (see **Figure 3**):

- Hazardous waste storage building (SWMU #1);
- Acetone reclaiming unit (SWMU #2);
- Former raw solvent storage area (SWMU #3);
- Former waste storage area (SWMU #4);

A summary of what was presented in the PAR for these SWMUs, as well as updated information and URS' observations from the June 2009 site visit, are presented herein. Relevant permitting history, as discussed in Section 2.3.2, is also summarized in **Table 2**. The hazardous waste inspection reports were reviewed by URS and are retained in the PADEP's and/or the USEPA's files. Hazardous waste inspections were performed regularly and were documented as such in the PADEP files. **Table 3** provides a summary of violations or problems documented during such inspections, which were discussed in Section 2.3.3.

Based on the information presented in the PAR, the Facility was given a RCRA ranking of low. The four SWMUs identified in the PAR are also the focus of this EI Report for the Facility. While other aspects of the Facility such as manufacturing process permitting and waste processing are discussed herein, the scope of this report focuses on providing a current assessment of the four previously-identified SWMUs.

3.1 SWMU #1 – Hazardous Waste Storage Building

Past Use - The hazardous waste storage building is a metal and concrete storage building located approximately 100 feet east of the raw solvent storage building (**Figure 3**). The building measures approximately 30 by 60 feet. At the time of the NUS site visit approximately 25 drums of waste were observed⁽⁶⁰⁾. Wastes stored in this building included waste motor oil, hardened waste polyester resin and gelcoat, toluene, acetone and MEK peroxide. Wastes were contained in 55-gallon steel drums placed on wooden pallets in the storage building. The building walls consist of a steel frame with metal siding outside and vinyl-covered walls inside. The lower portion of the walls (approximately two feet above the concrete floors) are concrete, thus serving secondary containment for the wastes. The concrete floors slope toward a floor drain located in the building's northeast corner. Below the drain a catch basin provided tertiary containment for spills. According to site personnel, the concrete basin is approximately two feet by two feet. No known or reported releases have been documented for the hazardous waste storage building.

Current Use – The hazardous waste storage building appears to have the same footprint and infrastructure. Current use includes small truck repair and storage of drums and equipment. Approximately 10 55-gallon drums and five small tanks were observed during the site visit. Not all drums were on pallets and most were not labeled. Some drums contained used oil. There was a diesel fuel odor in the building (**Appendix B, Photographs 12, 13, 14, and 15**).

3.2 SWMU #2 – Acetone Reclaiming Unit

Past Use - The acetone reclaiming unit was located in the raw solvent storage building against the western wall. It was approximately three feet high by four feet wide by two feet deep. Approximately 432 gallons per day of acetone were reclaimed by distillation⁽²⁾. Noncontact

cooling water was discharged through the system and was discharged into a nearby storm drain. No permit was required ⁽⁶⁰⁾. The use of the acetone reclaiming unit was begun in 1970. The concrete raw solvent storage building was approximately 20 by 40 feet and served as secondary containment. A floor drain, once present in the building, was closed off at the time of the 1989 inspection. There have been no known or reported releases in the subject area.

Current Use – The area where the former acetone reclaiming unit was located is currently used for storage. URS was unable to gain access to this area as this section of the building was locked and a key was not available. The former raw solvent storage area, which is located to the east in the same building, is currently used for the storage of road salt and bagged deicer (**Appendix B, Photographs 9 and 10**).

3.3 SWMU #3 – Former Raw Solvent Storage Area

Past Use - The former raw solvent storage area was approximately 20 by 100 feet and was located south of the north fence and SWMU #1 (**Figure 3**). Per the PAR, four ASTs were installed in one area in the late 1970s when the Facility began producing its own fiberglass boats⁽⁶⁰⁾. The tanks consisted of one 2,000-gallon acetone tank and three 275-gallon toluene tanks. No secondary containment was provided for the tanks. Releases of acetone and toluene were reported in early April 1987. Consequently, the tanks were relocated to the raw solvent storage building and contaminated soil was removed and thermally processed. A discussion of the remedial effort was presented in Section 2.4.1.

Current Use – The former raw solvent storage area is currently part of a gravel roadway and parking area for tractor trailers.

3.4 SWMU #4 – Former Waste Storage Area

Past Use - The former waste storage area was first used in the 1970's and consisted of an area approximately 50 by 100 feet located adjacent to the east fence (**Figure 3**). Drums of waste solvents, particularly acetone, toluene and MEK peroxide, were stored at SWMU #4. Waste polyester resin and gel-coat were allowed to harden at the former waste storage area before appropriate landfill disposal. Empty drums were also stored here. No release controls were present for the area and drums of waste and resins were placed directly on the ground. An August 1983 inspection indicated that drums were rusted and in poor condition. Subsequent soil sampling in 1987 revealed high levels of acetone, styrene, and toluene in the area. Remedial activities included the excavating of contaminated soil, landfilling, landfarming, and thermal processing of the soil, as previously discussed in detail in Section 2.4.1.

Current Use – The former waste storage area is a gravel parking area for tractor trailers. The east fence has been removed and it appears that the fence poles were cut off at grade.

4.0 NON-RCRA AOCS (UST CLOSURE)

According to an interview with Trojan Yacht President, Mr. Charles Underwood and Vice President, Mr. John Mowrer, conducted by RETTEW on February 3, 1992, the 6,000-gallon gasoline UST, formerly located on the north side of the production building, was excavated and removed by Keystone Block, Inc. in 1989, as a result of the UST being identified as a potential concern in Carlos Stern's 1998 environmental site review⁽⁵⁶⁾. The 30-year old steel constructed tank was observed to be in good condition with no evidence of holes detected on the vessel and no evidence of soil contamination. However, no confirmatory soil samples were collected from the excavation at the time of removal to verify the presence of hydrocarbon contamination and no closure documentation was located by URS⁽⁶⁵⁾. In 1992, a test pit was dug in the location of the former UST⁽⁷²⁾. A soil sample, collected and analyzed for TPH and BTEX, indicated no evidence of hydrocarbon contamination.

5.0 DESCRIPTION OF EXPOSURE PATHWAYS FOR ALL RELEASES OR POTENTIAL RELEASES

5.1 Air

Exposure pathways to air can occur due the presence of contaminants in both outdoor air and indoor air. A detailed discussion of the releases associated with both of these pathways for the former Facility is presented below.

5.1.1 Outdoor Air

As detailed in **Table 2** and discussed in Section 2.4.3, no air permits were located by URS during the file review process. Exhaust fans for the warehouse/storage area were not documented in the PAR or observed by URS during the site visit. No air releases for this Facility have been reported.

5.1.2 Indoor Air

Exposure to on-site workers via the indoor air pathway can be attributed to regular Site operations due to the usage and presence of solvents, paints, etc. It is presumed that this exposure was historically monitored to be in compliance with Occupational Safety and Health Administration (OSHA) regulations; however, documentation of this nature was not reviewed as part of the scope of this EI. During URS' June 2009 site visit, diesel odors were noted in the hazardous waste storage building (SWMU #1). A vent was observed in the building but no fans were present.

To evaluate potential risks to indoor air quality at the Site, URS reviewed results of soil gas, soil, and groundwater samples collected during previous site investigations (presented in detail in Sections 2.4 and 4), as discussed below. Review of available post-excavation soil gas, soil, and groundwater analytical results indicates the following:

- Post-excavation remedial soil samples collected in 1987 and presented in **Table 4** indicate that all analytical results were below the Act 2 Non-Residential Direct Contact MSC for soils 0-15 feet bgs, the Act 2 Residential Used Aquifer Soil-to-Groundwater MSC, and the Default Non-Residential Indoor Air Soil Screening Criteria.
- The post-excavation remedial grab groundwater sample collected in 1987 and presented in **Table 5** contained acetone (88,090 ug/L) and PCE (10 ug/L) at concentrations above the Act 2 MSC for Groundwater in a Residential Used-Aquifer Area of 3,700 ug/L (acetone) and 10 ug/L (PCE). However, both values were below the Default Non-Residential Indoor Air Groundwater Screening Criteria. For acetone the default criteria is not of concern (NOC) because the PADEP default modeling result value is above its water solubility. The PCE default criteria is 70,000 ug/L.
- Comparison of 1988 soil vapor results, which were collected from areas within and/or adjacent to SWMUs/AOCs, to the Act 2 Non-Residential Soil Vapor Screening Criteria indicates no exceedances (**Table 6**). The 1992 and 1994 soil vapor screening data cannot be compared to applicable Act 2 criteria because the data was for total volatiles, for which there is no standard.

- Test pit soil sample results collected in 1992 and 2006 indicate that all soil analytes are below the Act 2 Non-Residential Direct Contact MSC for soils 0-15 feet bgs, the Act 2 Residential Used Aquifer Soil-Groundwater MSCs and the Default Non-Residential Indoor Air Soil Screening Criteria (**Tables 7 and 11**).
- The results of groundwater samples collected and analyzed from 14 monitoring wells installed on-site, were compared to the Act 2 MSC for Groundwater in a Residential Use-Aquifer Area (**Table 10**). PCE was present in ten of the 14 wells above the 5 ug/L standard with a maximum concentration of 32 ug/L (MW-2). Comparison of the groundwater concentrations to the Default Non-Residential Indoor Air Groundwater Screening Criteria indicates no exceedances. PCE contamination present at the Site has been attributed to off-site sources.

All of the above referenced soil and groundwater analytical results have been screened against the PADEP Default Non-Residential Volatilization to Indoor Air Screening Values, as published in the PADEP's Guidance "*Section IV.A.4 - Vapor Intrusion into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standard*", effective January 24, 2004. The PADEP default screening values were derived using the USEPA Johnson & Ettinger model (J&E) with the default assumptions that:

- No separate phase liquid is present;
- A minimum of five feet of unsaturated, soil-like (i.e. not sand or gravel) material exists between contamination sources and occupiable structures; and,
- No preferential flow pathways are present for the vapor to travel.

Review of groundwater elevation data indicates that a depth to water of 11 feet bgs was measured in MW-11 and MW-14, which are located on the north and west sides of the property, respectively. The well closest to the building (MW-13) has a depth to water of 13 feet which is within the five foot buffer required by Act 2 for groundwater below a structure assuming an eight foot basement. Therefore, comparison of the available site soil and groundwater data indicate that the vapor intrusion pathway is not complete and that the standards have been met.

5.2 Groundwater

On-site groundwater has been investigated for the volatile organic constituents via installation and sampling of fourteen monitoring wells (MW-1 through MW-14) between 1992 and 2006. The monitoring wells were installed to monitor first-occurring groundwater, which was found in shallow bedrock. The well depths ranged from approximately 30 to 55 feet deep and static water was generally measured at approximately 11 to 29 feet below grade. Groundwater analytical results were compared to the most conservative standard, the Act 2 MSC for Groundwater in a Residential Used-Aquifer. A brief synopsis of the groundwater data collected at the Site is provided below:

Monitoring Wells	Groundwater Investigation Information
MW-6 Ingress Monitoring Point	Styrene, methyl tert-butyl ether, and 1,1,1-trichloroethane were present below MSCs during one sampling event. All other VOCs were below method detection limits (BMDL).
MW-8, MW-10, MW-11, MW-13 Upgradient Monitoring Points	PCE was present above the MSC at least once in all of the wells. 1,1,1-trichloroethane and cis-1,2-dichloroethene were present at least once in all wells, but below the Residential MSC.
MW-1, MW-2, MW-3, MW-4, MW-7, MW-9, MW-12 Site Monitoring Points	All VOCs in MW-7 were BMDL. PCE was present above the MSC at least twice in all wells except MW-7. 1,1,1-trichloroethane was present below the MSC at least twice in all wells except MW-7. Acetone, cis-1,2-dichloroethene, toluene, MEK, and ethylbenzene were present below the Residential MSC at least once in some of the samples.
MW-14 Point of Compliance Monitoring Point	PCE and 1,1,1-trichloroethane were present below the Residential MSC in all three sampling events. All other VOCs were BMDLs.

As presented in Section 2.4.5, statistical analyses of PCE and 1,1,1-trichloroethane for groundwater samples collected at the sentry well (MW-9) and the point of compliance well (MW-14) indicated decreasing trends. Consequently, WCTYD was granted Act 2 closure for groundwater via demonstration of attainment of the Residential Statewide Health Standard at the point of compliance.

URS found documentation in the files that MW-5 and MW-8 were properly decommissioned. No documentation in files reviewed indicated that the remaining monitoring wells have been properly decommissioned, although documentation indicates that MW-1, MW-2, and MW-3 have been destroyed and were unable to be located during the most recent sampling events. URS recommends, if possible, proper decommissioning of these wells because, if not undertaken, they may act as potential conduits for contaminants to enter the underlying groundwater table.

The source of drinking water at the Site is the Lancaster City Water. According to Pennsylvania's Drinking Water Reporting System (Source: Pennsylvania Drinking Water System, 2009) the City of Lancaster public water system currently serves a population of 120,000 via approximately 45,000 connections. Water is provided from a surface water source. In January 2008, the PADEP granted the City of Lancaster Non-Use Aquifer status through the PADEP Brownfields initiative.

At the time of the 1989 PAR report, approximately 4,324 residents within a three-mile radius of the Site had residential wells. In 1989, the closest residential well was located approximately $\frac{3}{4}$ miles east of the Site. The specifics of the well, including depth, were unknown. According to the Pennsylvania Groundwater Information System (PaGWIS), there are currently approximately two wells, both industrial, located within a half mile radius of the Site (**Figure 9**). The closest well is the Pruitt well located on the High Industrial property south of the Site. According to PaGWIS the Pruitt well has a depth of 125 feet while the depth of the other industrial well is unknown. Within a one mile radius of the Site, PaGWIS reports the presence of 20 wells.

5.3 Surface Water

The nearest named surface water body, Stauffer Run, is located approximately three-quarters of a mile north of the Facility. The nearest unnamed surface water body is a tributary to the Conestoga River located approximately ½-mile west of the Site. The PADEP identifies both these streams as a non-attained segment of the Integrated List according to the standards set by the Pennsylvania Clean Water Act (**Figure 10**). These standards are based upon aquatic life, fish consumption, recreational use and potable water supply criteria. Stauffer Run is also a tributary to the Conestoga River which located approximately one mile west of the Facility. Stauffer Run joins the Conestoga approximately a mile and a half northwest of the Facility. The Conestoga River is identified as a non-attained segment of the Integrated List according to the standards set by the Pennsylvania Clean Water Act. Both the FEMA Floodplain map and the PADEP eMapPA map indicate that the Facility is outside the 100 and 500 year flood plains (**Figure 11**). URS did not observe surface water bodies at the time of the June 2009 site visit.

Storm water at the Site is collected through various surface water drains in the paved portion of the parking lot. According to site personnel, storm water is collected in a retention pond at the west end of the property adjacent to the entrance before infiltrating to the groundwater.

The potential for indirect discharge of site contaminants to surface water is possible via the groundwater flow pathway. Groundwater flow gradient for the Site indicates flow towards the west trending along the contact between the Conestoga and Ledger formations, and toward the Conestoga River(**Figure 12**). Based on current information from the point of compliance (MW-14), it appears that the exposure pathway from surface water to on-site or off-site human and ecological receptors has been determined to be in compliance.

5.4 Soil

According to information obtained from the USDA Natural Resources Conservation Service program, a majority of the Facility is underlain by Urban land (Uc) whose parent material is defined as pavement, buildings and other artificially covered areas. The eastern third of the Site is underlain by the Hagerstown silt loam (HaA). Physical properties typical of this soil is well drained with silt loam (0 to 10 inches) underlain with silty clay (10 to 60 inches). Depth to water table is estimated to be more than 80 inches.

On-site soils have been investigated for a limited breadth of organic constituents via sample collection which was undertaken following the removal of soil in the areas of the SWMUs and during UST closure activities (**Tables 4, 7, and 11**). The exact location of the 1987 remedial post-excavation samples (**Table 4**) is unclear. Soil samples were also collected from test pits dug in 1992 and 2006 in the approximate locations of site SMUWs/AOCs. A brief synopsis of the test pit soils data collected at the Site is provided below:

Areas of Concern	Soils Investigation Information
SWMU #1	One soil sample was collected in 2006 at 3 feet bgs in TP#6. Acetone was present below the PADEP Act 2 Non-Residential Direct Contact MSC (10,000 mg/kg). All other constituents were BMDL.
SWMU #2	One soil sample was collected in 2006 at 3 feet bgs in TP#8. Acetone was present below the PADEP Act 2 Non-Residential Direct Contact MSC (10,000 mg/kg). All other constituents were BMDL.

Areas of Concern	Soils Investigation Information
SWMU #3	One soil sample was collected in 2006 at 3 feet bgs in TP#4. Another soil sample was collected in 1994 at 4 feet bgs in TP#2. Acetone was present below the PADEP Act 2 Non-Residential Direct Contact MSC (10,000 mg/kg) in both samples. All other constituents were BMDL.
SWMU#4	Two soil samples were collected in 2006 at 3 feet and 6 feet bgs in TP#3. Another soil sample was collected in 2006 at 3 feet bgs in TP#1. Acetone was present below the PADEP Act 2 Non-Residential Direct Contact MSC (10,000 mg/kg) in both samples. All other constituents were BMDL.
Former 6,000-gallon gasoline UST	One soil sample was collected in 1994 at 10 feet bgs in the UST test pit. The sample was analyzed for BTEX. All constituents were BMDL.

Based on the screening of the data against the Act 2 Non-Residential Direct Contact MSCs, the Act 2 Residential Used Aquifer Soil-to-Groundwater MSCs, and the Default Non-Residential Indoor Air Soil Screening Criteria, as presented in **Tables 4, 7, and 11**, complete exposure pathways of concern between potential receptors and soils impacted as a result of former site operations are not present at the Site.

6.0 EXPOSURE PATHWAY CONTROLS AND/OR RELEASE CONTROLS INSTITUTED AT THE FACILITY

6.1 Air

A detailed discussion of the controls associated with the outdoor and indoor air pathways at the former Facility is presented below.

6.1.1 Outdoor Air

No known releases to outdoor air are known or presumed to be required.

6.1.2 Indoor Air

A description of the potential indoor air exposure pathway via soil vapor intrusion was provided previously in Section 5.1.2. There are currently no controls on the indoor air pathway at the Site. The data currently available for the investigated portions of the Site indicate that the pathway is incomplete.

6.2 Groundwater

As summarized in Section 5.2, groundwater has been shown to be unimpacted in the areas of former SWMUs. Groundwater is reportedly currently not used on-site. On-site groundwater use is not deed restricted. There are two known industrial wells located within one-half mile of the Site, one of which is the Pruitt well on the adjacent High Industries property. The groundwater flow gradient for the Site is toward the west parallel to the Conestoga-Ledger contact and towards the Conestoga Creek. There are no known controls to limit groundwater flow or on-site or off-site groundwater use and no controls appear to be necessary based on information currently available. PCE contamination present at the Site has been attributed to off-site sources.

6.3 Surface Water

As documented in Section 5.3, there are no direct discharge from site operations to surface water that require permitted control. It appears that the indirect groundwater discharge-to-surface water pathway is incomplete because diffuse groundwater discharge would result in acceptable limits to on-site or off-site human or ecological receptors (based on point-of-compliance well, MW-14, analytical data). Therefore, controls on groundwater discharge to on-site and off-site surface water bodies are unnecessary.

6.4 Soil

On-site soils in SWMU/AOC areas have been investigated for a limited breadth of organic constituents via several investigation phases. Post-excavation samples collected in the remediated SWMU #s 3 and 4 areas and subsequent phases of test pit soil sampling in SWMU/AOC areas have demonstrated attainment of applicable Act 2 standards (constituents used on-site were BMDL or below the PADEP Act 2 Non-Residential Direct Contact MSCs, the Act 2 Residential Used Aquifer Soil-to-Groundwater MSCs, and the Default Non-Residential Indoor Air Soil Screening Criteria). Therefore, complete exposure pathways are not present at the Site and controls are unnecessary.

The active operations portion of the Site is partially secured with a chain-linked fence around a portion of the Site. No guardhouse exists at the main entrance to control access to the Facility although there is a rolling gate. A visitor sign-in area was not observed during the site visit.

7.0 CONCLUSIONS AND FOLLOW-UP ACTION ITEMS

Using known and available information obtained from the USEPA and the PADEP, URS completed this report and concludes that, relative to the USEPA's EI Assessment Program, outdoor air, indoor air, groundwater, soil (surface and subsurface), sediment, and surface water do not appear to be of concern at the Site. PCE contamination present at the Site has been attributed to off-site sources. Remediation under the PADEP Land Recycling and Environmental Remediation Standards Act (Act 2) was granted for this facility on October 28, 2008.

The PADEP SCRO and the USEPA-Region III will decide if additional information or sample collection at the Facility is required to determine whether or not the environmental indicators have been met or if Corrective Action is required by the Facility.

8.0 REFERENCES

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- Pennsylvania Department of Environmental Protection, Storage Tank Cleanup [http://www.
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- United States Census Bureau. Fact Sheet for East Lampeter Township. [http://factfinder.
census.gov/servlet/SAFFFacts](http://factfinder.census.gov/servlet/SAFFFacts) accessed September 2008

TABLES

Table 1

Site Visit Participants

**Former Whittaker Corporation – Trojan Yacht Facility
East Lampeter Township
Lancaster County, Pennsylvania
June 29, 2009**

Person on Site	Company Represented
Lisa Wilt	Pennsylvania Department of Environmental Protection (717)705-4910 lwilt@state.pa.us
Linda Houseal	Pennsylvania Department of Environmental Protection (717)826-2076 lhousel@state.pa.us
Tran Tran	USEPA (215)814-2079 tran.tran@epa.gov
Douglas Weidman	Shippen Realty Partners (717)397-4569 dougweidman@comcast.net
Lisa Weidman	Shippen Realty Partners (717)397-4569
Linford L. Good	High Associates Ltd. (717)293-4551 lgood@high.net
Rane A. Wilson	Rettew Associates (717)635-7926 rwilson@rettew.com
Rebecca Walsh	URS (717)635-7910 rebecca_walsh@urscorp.com

Table 2

**Historical and Current Permits
Former Whittaker Corporation - Trojan Yacht Facility
East Lampeter Township
Lancaster County, Pennsylvania**

URS ID No.	Permit No.	Process information	Issue Date	Comments
Facility Operating Permit				
1	PAD052922556	Generator/TSD Facility	received by PADER: 8/18/1980	Notification of Hazardous Waste Activity
2	PAD052922556	Generator/TSD Facility	submitted: 11/14/1980 approved: 2/20/81	Hazardous Waste Permit Application - for acetone & acetone stillbottoms (F003), methylbenzene (U220), methyl ethyl ketone peroxide (U160)
3	PAD052922556	Generator/TSD Facility - amended	5/18/1981	Change processing code from Landfill (D80) to Containers (S01) due to reclamation by distillation and solidifying with polyester. D80 was an incorrect processing code.
4	PAD052922556	General Permit	7/7/1981	Contains a map identifying SWMUs and process areas.
5	PAD052922556	Generator/TSD Facility - amended	8/12/1981	Interim Status - 5,000 gals (S01), 432 gpd (T04), 100 gallons (S01), 432 gpd (T04), 90 gals (S01), and 90 gpd (T04)
6	PAD052922556	Generator Facility	11/30/1983	Notification of Hazardous Waste Activity - Generator only; remove TSD status

Table 3

Inspection Information

Former Whittaker Corporation – Trojan Yacht Division Facility

East Lampeter Township, Lancaster County, Pennsylvania

<u>Date</u>	<u>Type of Inspection</u>	<u>Violations</u>	<u>Comments</u>	<u>Appendix A Document Number</u>
November 6, 1981	Hazardous Waste Inspection Report	No violations		11
July 8, 1982	Hazardous Waste Inspection Report	No violations	Waste streams are non-hazardous; applying for industrial waste disposal	14, 15
March 18, 1983	Hazardous Waste Inspection Report	No violations	Completing Part B for Storage	17
August 17, 1983	Hazardous Waste Inspection Report	1. Improper drum labeling 2. Improper disposal of still bottom waste 3. Rusting drums, poor drum condition		19
May 2, 1984	Hazardous Waste Inspection Report	1. Improper drum labeling 2. Manifest violation		24
December 18, 1986	Hazardous Waste Inspection Report	1. Submission of Quarterly Reports 2. Unlabeled drums 3. Drums in poor condition 4. Manifest violation	Notice of Violation issued (12/24/86)	26, 27
January 14, 1987	Hazardous Waste Inspection Report	1. Need Accumulation Log 2. Hardening of waste resins on ground observed	Notice of Violation issued (2/10/87)	28, 31
March 23, 1987	Hazardous Waste Inspection Report		Cleanup Digging Disposal	32
March 26, 1987	Hazardous Waste Inspection Report		Clean up Digging Disposal	33
March 27, 1987	Hazardous Waste Inspection Report		Clean up	34
April 2, 1987	Hazardous Waste Inspection Report		Clean up	35
April 29, 1987	Hazardous Waste Inspection Report		Sampling of kiln	43
June 16, 1987	Hazardous Waste Inspection Report		Inspection of accumulation/maintenance log	49
August 29, 1989	Hazardous Waste Inspection Report	No violations		59

Table 3 (continued)

**Inspection Information
Former Whittaker Corporation – Trojan Yacht Division Facility
East Lampeter Township, Lancaster County, Pennsylvania**

<u>Date</u>	<u>Type of Inspection</u>	<u>Violations</u>	<u>Comments</u>	<u>Appendix A Document Number</u>
July 31, 1991	Hazardous Waste Inspection Report	No violations	Facility appears to be closing	66
September 9, 1992	Hazardous Waste Inspection Report		Closed	66
October 1, 1992	Hazardous Waste Inspection Report		Closed- Part A Permit withdrawn 1-11-84	67
June 6, 1998	Storage System Report		3 hazardous waste ASTs (1 1,000 gal & 2 5,000 gal tanks) have been removed, 7 ASTs listed	84
July 15, 2002	Storage System Report		2 ~1,100 gal diesel fuel ASTs observed	85
August 22, 2002	Storage System Report		No tanks observed, Owner states that tanks were removed ~ 10 years ago; No closure reports located in the central file	86

Table 4
Soil Analytical Results - 1987 Pre- and Post- Remediation
Former Whittaker Corporation-Trojan Yacht Division Facility
East Lampeter Township, Lancaster County, Pennsylvania

Pre-Remediation

Analytical Laboratories		M.J. Reider	M.J. Reider	M.J. Reider	M.J. Reider	M.J. Reider	M.J. Reider	M.J. Reider	PADEP Bureau of Labs	PADEP Bureau of Labs	PADEP Bureau of Labs	PADEP Bureau of Labs	PADEP Bureau of Labs	PADEP Bureau of Labs	Lancaster Labs	Lancaster Labs	Lancaster Labs	Lancaster Labs	M.J. Reider	PADEP Bureau of Labs	Lancaster Labs	Lancaster Labs	PADEP Bureau of Labs	M.J. Reider	M.J. Reider	M.J. Reider	M.J. Reider	Act 2 Non-Res. Direct Contact MSC 0-2 ft bgs	Act 2 Non-Res. Direct Contact MSC 2-15 ft bgs	Act 2 Residential Used Aquifer S-GW MSC	Default Non-Res. Indoor Air Soil Screening Criteria
Sample Identification		Trojan Yacht	Sample 1 Composit e Land Farm	Sample 2 Hole 1 Bottom 12' down	Sample 3 Hole 1 Side Wall 6' down	Sample 4 Hole 2 Bottom Approx. 3-4' down	Sample 5 Hole 3 Approx. 2' down	Sample 6 Hole 3 Approx. 10-11' down	Collected from West Side of Stock Pile	Collected from East Side of Stock Pile	1.5' Deep From Side of Hole Under Tanks	8' Deep From Bottom of Hole Under Tank	2' Deep From Side of Hole	8' Deep Upper Hole (Side)	#1 - Large Hole Side Wall	#2 - 40' From West End of Runway Center	#3 - 80' From West End of Runway Center	#4 - 100' From West End of Runway	Large Trench Floor (3x split)	Large Trench Floor (3x split)	Large Trench Floor (3x split)	Bottom "Large Hole" near Limestone Rock	Soil Sample From the Base of the Limestone Boulder	Sample #1	Sample #2	Sample #3	Trojan Yacht Soil Sample #1				
Date Sampled	units	3/2/87	4/2/87	4/2/87	4/2/87	4/2/87	4/2/87	4/2/87	4/9/87	4/9/87	4/14/87	4/14/87	4/14/87	4/14/87	4/15/87	4/15/87	4/15/87	4/15/87	4/16/87	4/16/87	4/16/87	4/16/87	4/16/87	4/20/87	4/20/87	4/20/87	4/22/87				
Acetone	mg/kg	<0.10	<0.20	<0.20	1.54	2.95	8.7	<0.20	NR	NR	NR	350	0.010	25.0	70.0	0.1	31.0	0.01	169.22	170	30.0	1,100	650	<0.20	582.11	<0.20	0.3	10,000	10,000	370	110,000 +
Ethylbenzene	mg/kg	NR	<0.10	NA	NA	NA	NA	<0.10	0.10	0.10	200	0.2	NR	NR	0.022	<0.005	0.022	<0.005	NR	NR	<0.005	0.010	NR	NR	NR	NR	NR	10,000	10,000	70	9.5
Methylene chloride	mg/kg	NR	<0.10	NA	NA	NA	NA	<0.10	NR	NR	NR	0.55	0.500	NR	0.01	<0.005	<0.005	<0.005	NR	NR	<0.005	<0.005	1.50	NR	NR	NR	NR	3,500	4,000	0.5	14
Methyl ethyl ketone	mg/kg	NR	<0.20	NA	NA	NA	NA	<0.20	NR	NR	NR	NR	NR	NR	<0.01	<0.01	1.4	<0.01	2.17	7.0	0.5	0.018	25	<0.10	7.98	<0.10	<0.10	10,000	10,000	280	14,000
Stryrene	mg/kg	3.18	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	NR	NR	1,300	1.1	NR	NR	<0.005	<0.005	0.042	<0.005	<0.10	NR	<0.005	<0.005	0.04	<0.10	<0.10	<0.10	<0.10	10,000	10,000	24	720 +
Tetrachlorethylene	mg/kg	NR	<0.10	NA	NA	NA	NA	<0.10	NR	NR	NR	0.25	NR	NR	<0.005	<0.005	0.01	<0.005	NR	NR	<0.005	<0.005	NR	NR	NR	NR	NR	1,500	3,300	0.5	10
Toluene	mg/kg	0.40	<0.10	<0.10	<0.10	<0.10	0.60	<0.10	0.20	0.20	580	0.7	0.060	NR	0.2	<0.005	0.3	<0.005	<0.10	NR	0.006	0.20	NR	<0.10	<0.10	<0.10	<0.10	10,000	10,000	100	110
Total xylenes	mg/kg	NR	<0.10	NA	NA	NA	NA	<0.10	NR	NR	NR	0.5	0.030	NR	<0.005	<0.005	0.15	<0.005	NR	NR	<0.005	0.030	NR	NR	NR	NR	NR	10,000	10,000	1,000	77
Vinyl chloride	mg/kg	NR	<0.20	NA	NA	NA	NA	<0.20	NR	NR	NR	0.4	0.350	NR	<0.010	<0.010	<0.010	<0.010	NR	0.3	<0.010	<0.01	0.325	NR	NR	NR	NR	53	220	0.5	0.061

Post-Remediation

Analytical Laboratory		M.J. Reider	M.J. Reider	PADEP Bureau of Labs	PADEP Bureau of Labs	PADEP Bureau of Labs	PADEP Bureau of Labs	PADEP Bureau of Labs	PADEP Bureau of Labs	PADEP Bureau of Labs	M.J. Reider	M.J. Reider	M.J. Reider	M.J. Reider	M.J. Reider	M.J. Reider	Act 2 Non-Res. Direct Contact MSC 0-2 ft bgs	Act 2 Non-Res. Direct Contact MSC 2-15 ft bgs	Act 2 Residential Used Aquifer S-GW MSC	Default Non-Res. Indoor Air Soil Screening Criteria	
Sample Identification		Grab Sample #1	Grab Sample #2	Back Filled Dirt After Aeration	Land Farmed Soil After Processing	Hot Soil From Burner Discharge	Grab Sample - East End of Large Hole	Sample Point #1 West Ramp	Sample Point #2 Above Limestone	Sample Point #3 Floor of Hole - Older Tank	Sample #1	Sample #2	Sample "B"	Soil 1 Stack Test Machine	Sample 1 After Clean up Fines From Thermal Generator	Sample 2 After Clean up Soil Sample From Large Hole					
Date Sampled	units	4/27/87	4/27/87	4/27/87	4/27/87	4/27/87	4/28/87	4/28/87	4/28/87	4/28/87	4/29/87	4/29/87	4/29/87	4/29/87	4/30/87	4/30/87					
Acetone	mg/kg	<0.20	<0.20	2.4	6.5	38	<0.2	9.0	GC/MS No VOAs detected	0.2	<0.05	<0.05	<0.05	59.97	0.92	4.29	10,000	10,000	370	110,000 +	
Stryrene	mg/kg	NR	NR	<0.05	NR	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	10,000	10,000	24	720 +
Toluene	mg/kg	NR	NR	NR	NR	0.400	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	10,000	10,000	100	110

Notes:
Shaded results are greater then one or more of the listed screening criteria.
NA = Not analyzed
NR = Not reported, however it may have been analyzed for but not reported.
MSC = Medium Specific Concentration
Reference: " Remedial Investigation/Response Action Report", A.L. Simmons Consultant, May 10, 1987.

Table 5

Groundwater Analytical Results - 1987 Grab Samples
Former Whittaker Corporation-Trojan Yacht Division Facility
East Lampeter Township, Lancaster County, Pennsylvania

Analytical Laboratory		M.J. Reider	M.J. Reider	PADEP Bureau of Labs	Act 2 MSC for Groundwater in a Residential Used-Aquifer Area (ug/L)	Default Non-Residential Indoor Air Groundwater Screening Criteria (ug/L)
Sample Identification		Grab Sample #4	Trojan Yacht	VOA Groundwater Split with Reider Lab ⁽¹⁾		
Date Sampled	units	4/20/87	4/20/87	4/28/87		
Acetone	ug/L	1,057	88,090	20(?)	3,700	NOC
cis-1,2 Dichloroethylene	ug/L	NR	NR	1.0	70	59,000
1,1-Dichloroethane	ug/L	NR	NR	1.2	27	26,000
1,1-Dichloroethylene	ug/L	NR	NR	1.2	7	220,000
Methyl ethyl ketone	ug/L	<50	1,316.92	250(?)	4,000	69,000,000
Stryrene	ug/L	<10	14.83	NR	100	NOC
Tetrachloroethylene	ug/L	NR	NR	10	5	70,000
Toluene	ug/L	<10	86.74	10	1,000	NOC
1,1,1-Trichloroethane	ug/L	NR	NR	30	200	NOC

Notes:

(1) No Reider Lab split located for this sample

(?) Poor legibility of reported result

MSC = Medium Specific Concentration

NR = Not reported however it may have been analyzed for but not reported.

NOC = Not of Concern, PADEP default modeling result value above constituent water solubility.

Shaded results are greater than one or more of the listed screening criteria.

Reference: "Remedial Investigation/Response Action Report", A.L. Simmons Consultant, May 10, 1987.

Table 6

1988 Soil Gas Data⁽¹⁾
Former Whittaker Corporation-Trojan Yacht Division Facility
East Lampeter Township, Lancaster County, Pennsylvania

Sample	Acetone	Benzene	Ethyl- benzene	Pentane/ MTBE ⁽²⁾	Toluene	m- & p- Xylene	o- Xylene	Total Volatiles ⁽³⁾
Act 2 Non-Residential Soil Vapor Screening Criteria	3,800,000	340	1,600	8,500	31,000	6,900 (Total Xylenes)		NV
1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	1.2
3	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	13	14
4	<1.0	<1.0	<1.0	<1.0	2.7	<1.0	4.9	7.4
5	<1.0	<1.0	<1.0	<1.0	21	<1.0	<1.0	24
6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2
7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.8
8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6
9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.3
10	<1.0	<1.0	18	9	3.2	23	50	1,059
11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	13
12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	18
13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	11
17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.5
19	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	9
22	<1.0	<1.0	32	<1.0	11	<1.0	310	343
23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.3	3.8
24	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.4
25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
26	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.2
27	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
28	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
30	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
31	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
32	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	27	62
33	<1.0	<1.0	<1.0	<1.0	11	<1.0	<1.0	68
34	<1.0	<1.0	<1.0	1.5	98	<1.0	<1.0	280

Notes:

(1) Units in ug/L (i.e. ppbv)

(2) Concentrations based on response factor of MTBE

(3) Calculated using the sum of the areas of all integrated chromatogram peaks and the instrument response factor for toluene.

NV = No Screening Value

There are no exceedances of the listed screening criteria in the data set.

Reference: "Soil Gas Survey, Trojan Corporation", prepared for Mark Schultz Associates by Target Environmental Services, Inc., October 1988.

Table 7
1992 Test Pit Sample Laboratory Analytical Results⁽¹⁾
Former Whittaker Corporation - Trojan Yacht Division Facility
East Lampeter Township, Lancaster County, Pennsylvania

Test Pit*	Total Depth (ft bgs)	Sample Depth (ft bgs)	Acetone	Benzene	Ethyl- benzene	Methylene Chloride	Styrene	Toluene	Xylenes
UST	10	10	NA	<0.006	<0.006	NA	NA	<0.006	<0.018
TP-1	2	0.5	<0.011	<0.005	<0.005	<0.005	0.006	<0.005	<0.005
TP-2	4	4	0.020	<0.006	<0.006	0.007	<0.006	<0.006	<0.006
TP-3	8	4	0.017	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
TP-4	4	4	0.016	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
TP-6	3	4	0.017	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
TP-7	3	3	0.026	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Act 2 Non-Residential Direct Contact MSC		0-2 ft bgs	10,000	210	10,000	3,500	10,000	10,000	10,000
		2-15 ft bgs	10,000	240	10,000	4,000	10,000	10,000	10,000
Act 2 Residential Used Aquifer S-GW MSC			370	0.5	70	0.5	24	100	1,000
Default Non-Residential Indoor Air Soil Screening Criteria			110,000+	0.63	10	14	720+	110	77

Notes:

(1) Concentrations and screening criteria reported in milligrams per kilogram (mg/kg) dry weight.

* TP-5, TP-8 and TP-9 were not sampled due to lack of staining, odors or PID readings.

NA = Not analyzed

NV = No value

There are no exceedances of the listed screening criteria in the data set.

References: "Phase II Environmental Site Assessment, Trojan Yacht Site", RETTEW Associates, Inc., August 1994.

"Act 2 - Final Report, Former Trojan Yacht", RETTEW Associates, Inc., June 2008 revised July 2008.

Table 8
1994 Soil Vapor Survey Results - Lot 1
Former Whittaker Corporation - Trojan Yacht Division Facility
East Lampeter Township, Lancaster County, Pennsylvania

Survey Points	Depth of Reading (ft bgs)	Total Vapor Concentrations (ppm)	Survey Points	Depth of Reading (ft bgs)	Total Vapor Concentrations (ppm)
1	1	160	17	1	0
	2	180		2	0.6
	3	250		3	0
2	No penetration		18	1	0
3	0.5	375		2	0
4	0.5	113		3	0.2
5	0.83	106	19	1	0.2
6	1	25		2	0.6
	2	70		3	0
	3	19	20	1	0
7	1	64		2	0
	2	64		3	0.2
	3	96	21	1	2
8	1	90		2	2
	2	88		3	15
	3	33	22	1	0.2
9	1	0.6		2	0.2
	2	45		3	0
	3	14	23	1	0
10	1	11		2	1
	2	6		3	0
	3	5	24	1	0
11	1	9		2	0.2
	2	4		3	0
	3	1	25	1	0
12	1	1.1		2	0.2
	2	1.6		3	0
	3	2.5	26	1	0
	4	16		2	0
13	1	2.9		3	4
	2	2.5	27	1	0.2
	3	1		2	2.5
14	1	7		3	0
	2	15	28	1	0
	3	3		2	0.2
15	1	1.6		3	0
	2	2.5	29	1	0
	3	2		2	2
16	1	0.1		3	0
	2	0.6			
	3	0			

Notes:

Readings collected using a photoionization detector.

Reference: "Phase II Environmental Site Assessment, TrojanYacht Site", RETTEW Associates, Inc., August 1994.

Table 9
Monitoring Well Construction Information
Former Whittaker Corporation - Trojan Yacht Division Facility
East Lampeter Township, Lancaster County, Pennsylvania

Well Identification	Construction Date	Total Depth (ft bgs)	Depth to Bedrock (ft bgs)	Screened Interval (ft bgs)	Depth to Water (ft bgs)	Sand Gravel Pack (ft bgs)	Relative Elevation (ft msl)	Current Status
MW-1	3/2/1992	40	13	15-40	24.7	10-40	107.83	Destroyed
MW-2	3/2/1992	40	14	17.5-37.5	20.8	10-40	105.03	Destroyed
MW-3	3/2/1992	49	8.5	14-49	15.8	8-49	97.86	Destroyed
MW-4	3/2/1992	45	17	15-45	15.7	10-45	98.15	Not observed
MW-5	7/18/1994	41	6	10-41	13.74	7-41	NA	Decommissioned
MW-6	2/21/2006	35	10	15-35	26	13-35	NA ⁽²⁾	Not observed
MW-7	2/21/2006	40	27 ⁽¹⁾	17.5-37.5	29	15.5-37.5	NA ⁽²⁾	Not observed
MW-8	2/22/2006	30.5	23	11-30.5	21	8.5-31	NA ⁽²⁾	Decommissioned
MW-9	2/22/2006	34	14	14-34	24	11.5-34	NA ⁽²⁾	Not observed
MW-10	2/22/2006	45	8	15-45	27	13-45	NA ⁽²⁾	Observed
MW-11	2/23/2006	37	23	7-37	11	5-37	NA ⁽²⁾	Observed
MW-12	10/5/2006	55	10	15-55	21	13-55	351.12	Not observed
MW-13	10/5/2006	55	35	15-55	13	13-55	341.5	Observed
MW-14	10/9/2006	40	15	10-40	11	8-40	330.16	Not observed

(1) "Soft spot" at 28-30 ft bgs; well collapse from 37.5-40 ft bgs

(2) NA - GCI report indicates that elevations had not been determined at the time of publication

References: "Phase II Environmental Site Assessment, Trojan Yacht Site", RETTEW Associates, August 1994
"Report on Initial Groundwater Investigation", GCI Environmental Services, March 20, 2006
"Act 2 - Final Report, Former Trojan Yacht", RETTEW Associates, July 2008

Table 10
Groundwater Data Collected from Monitoring Wells
Former Whittaker Corporation - Trojan Yacht Division Facility
East Lampeter Township, Lancaster County, Pennsylvania

Analytical Laboratories		Lancaster Labs	Lancaster Labs	Lancaster Labs	Lancaster Labs	Lancaster Labs	Lancaster Labs	Lancaster Labs	Lancaster Labs	Lancaster Labs	Lancaster Labs	Lancaster Labs	Lancaster Labs	ALSI	ALSI	Lancaster Labs	American Westech, Inc.	ALSI	ALSI	American Westech, Inc.	ALSI	ALSI	American Westech, Inc.	Act 2 MSC for Groundwater in a Residential Used-Aquifer Area (ug/L)	Default Non-Residential Indoor Air Groundwater Screening Criteria (ug/L)
Sample Identification		MW-1			MW-2			MW-3			MW-4					MW-5	MW-6			MW-7			MW-8		
Date Sampled	units	3/3/92	10/1/93	7/19/94	3/3/92	10/1/93	7/19/94	3/3/92	10/1/93	7/19/94	3/3/92	10/1/93	7/19/94	7/26/07	1/3/08	7/19/94	3/2/06	7/26/07	1/3/08	3/2/06	7/26/07	1/3/08	3/2/06		
Acetone	ug/L	<10	<10	<10	<10	<10	<10	13	<10	<10	14	<10	<10	<10	<10	NR	<50.0	<10	<10	<50.0	<10	<10	<50.0	3,700	NOC
1,1-Dichloroethene	ug/L	<5	<10	<10	<5	<10	<10	<5	<10	<10	<5	<10	<10	<1.0	<1.0	NR	<2.00	<1.0	<1.0	<2.00	<1.0	<1.0	<2.00	7	220,000
cis-1,2-Dichloroethene	ug/L	<5	<10	<10	<5	<10	<10	<5	<10	<10	<5	<10	<10	1.4	1.4	NR	<2.00	<1.0	<1.0	<2.00	<1.0	<1.0	2.28	70	59,000
trans-1,2-Dichloroethene	ug/L	<5	<10	<10	<5	<10	<10	<5	<10	<10	<5	<10	<10	<1.0	<1.0	NR	<2.00	<1.0	<1.0	<2.00	<1.0	<1.0	<2.00	100	83,000
Ethylbenzene	ug/L	<5	<10	<10	<5	<10	<10	<5	<10	<10	<5	<10	<10	<1.0	<1.0	NR	<2.00	<1.0	<1.0	<2.00	<1.0	<1.0	<2.00	700	45,000
Methyl ethyl ketone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NR	<3.00	<10	<10	<3.00	<10	<10	<3.00	4,000	69,000,000
Methyl tert-butyl ether	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	7.70	NA	NA	<2.00	NA	NA	<2.00	20	640,000
Styrene	ug/L	<5	<10	<10	<5	<10	<10	<5	<10	<10	<5	<10	<10	<1.0	<1.0	NR	<4.00	5.3	<1.0	<4.00	<1.0	<1.0	<4.00	100	NOC
Tetrachloroethene	ug/L	12	19	16	27	32	15	17	22	19	25	27	25	12.1	12.0	ND	<2.00	<1.0	<1.0	<2.00	<1.0	<1.0	20.2	5	70,000
Toluene	ug/L	<5	<10	<10	<5	<10	<10	<5	<10	<10	<5	<10	<10	<1.0	<1.0	NR	<2.00	<1.0	<1.0	<2.00	<1.0	<1.0	<2.00	1,000	NOC
1,1,1-Trichloroethane	ug/L	13	36	24	19	33	24	18	37	28	29	42	41	7.9	<1.0	ND	<2.00	<1.0	5.6	<2.00	<1.0	<1.0	13.5	200	NOC
Xylenes	ug/L	<5	<10	<10	<5	<10	<10	10	<10	<10	<5	<10	<10	<3.0	<3.0	NR	<6.00	<3.0	<3.0	<6.00	<3.0	<3.0	<6.00	10,000	NOC

Analytical Laboratories		American Westech, Inc.	ALSI	ALSI	American Westech, Inc.	ALSI	ALSI	American Westech, Inc.	ALSI	ALSI	ALSI	ALSI	ALSI	ALSI	ALSI	ALSI	ALSI	ALSI	Act 2 MSC for Groundwater in a Residential Used-Aquifer Area (ug/L)	Default Non-Residential Indoor Air Groundwater Screening Criteria (ug/L)	
Sample Identification		MW-9			MW-10			MW-11			MW-12			MW-13			MW-14				
Date Sampled	units	3/2/06	7/26/07	1/3/08	3/2/06	7/26/07	1/3/08	3/2/06	7/26/07	12/31/07	11/6/06	7/26/07	1/3/08	11/6/06	7/26/07	1/3/08	11/6/06	7/26/07	1/3/08		
Acetone	ug/L	<50.0	<10	<10	<50.0	<10	<10	<50.0	<10	<10	<10	<10	<10	17.8	<10	<10	<10	<10	<10	3,700	NOC
1,1-Dichloroethene	ug/L	<2.00	<1.0	<1.0	<2.00	<1.0	<1.0	<2.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	7	220,000
cis-1,2-Dichloroethene	ug/L	<2.00	<1.0	<1.0	<2.00	1.4	<1.0	<2.00	1.1	1.8	1.6	1.5	2.6	<1.0	1.3	1.6	<1.0	<1.0	<1.0	70	59,000
trans-1,2-Dichloroethene	ug/L	<2.00	<1.0	<1.0	<2.00	<1.0	<1.0	<2.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	100	83,000
Ethylbenzene	ug/L	<2.00	<1.0	<1.0	<2.00	<1.0	<1.0	<2.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	700	45,000
Methyl ethyl ketone	ug/L	<3.00	<10	<10	39.3	<10	<10	<3.00	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	4,000	69,000,000
Methyl tert-butyl ether	ug/L	<2.00	NA	NA	<2.00	NA	NA	<2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20	640,000
Styrene	ug/L	<4.00	<1.0	<1.0	<4.00	<1.0	<1.0	<4.00	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	100	NOC
Tetrachloroethene	ug/L	11.5	4.4	2.6	<2.00	10.1	4.8	16.2	10.9	12.3	11.7	11.3	15.7	<1.0	4.3	17.3	4.3	4.1	2.5	5	70,000
Toluene	ug/L	<2.00	<1.0	<1.0	<2.00	<1.0	<1.0	<2.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,000	NOC
1,1,1-Trichloroethane	ug/L	10.6	3.7	1.6	<2.00	7.3	2.6	12.3	6.4	5.1	6.4	7.5	6.3	1.0	5.2	8.1	4.0	4.5	2.2	200	NOC
Xylenes	ug/L	<6.00	<3.0	<3.0	<6.00	<3.0	<3.0	<6.00	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	10,000	NOC

Notes:
Shaded results are greater than one or more of the listed screening criteria.
NA = Not Analyzed
ND = Not Detected
NR = Not Reported
MSC = Medium Specific Concentration
References: "Act 2 - Final Report, Former Trojan Yacht", RETTEW Associates, Inc., July 2008.
"Phase II Environmental Site Assessment", RETTEW Associates, Inc., August 1994.

Table 11
Volatile Organic Analytical Results⁽¹⁾
2006 Soil Samples Collected from Test Pits
Former Whittaker Corporation - Trojan Yacht Division Facility
East Lampeter Township, Lancaster County, Pennsylvania

Test Pit	Total Depth (ft bgs)	Sample Depth (ft bgs)	Acetone	Benzene	Ethyl- benzene	Methylene Chloride	Styrene	Toluene	Xylenes
TP-1	6	3	0.0603	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004
TP-2-1	7	3	0.0693	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0043
TP-2-2	7	6	0.0436	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0043
TP-3-1	6	3	0.0657	<0.0017	<0.006	<0.006	<0.006	<0.006	<0.006
TP-3-2	6	6	0.017	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
TP-4	5.25	3	0.026	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
TP-5	6	3	0.017	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
TP-6	<4	3	0.016	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
TP-7	6	3	0.017	<0.006	<0.006	<0.006	<0.006	<0.006	<0.0017
TP-8	>4.8	3	0.026	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Act 2 Non-Residential Direct Contact MSC		0-2 ft bgs	10,000	210	10,000	3,500	10,000	10,000	10,000
		2-15 ft bgs	10,000	240	10,000	4,000	10,000	10,000	10,000
Act 2 Residential Used Aquifer S-GW MSC			370	0.5	70	0.5	24	100	1,000
Default Non-Residential Indoor Air Soil Screening Criteria			110,000+	0.63	10	14	720+	110	77

Notes:

(1) Concentrations and screening criteria reported in milligrams per kilogram (mg/kg) dry weight.

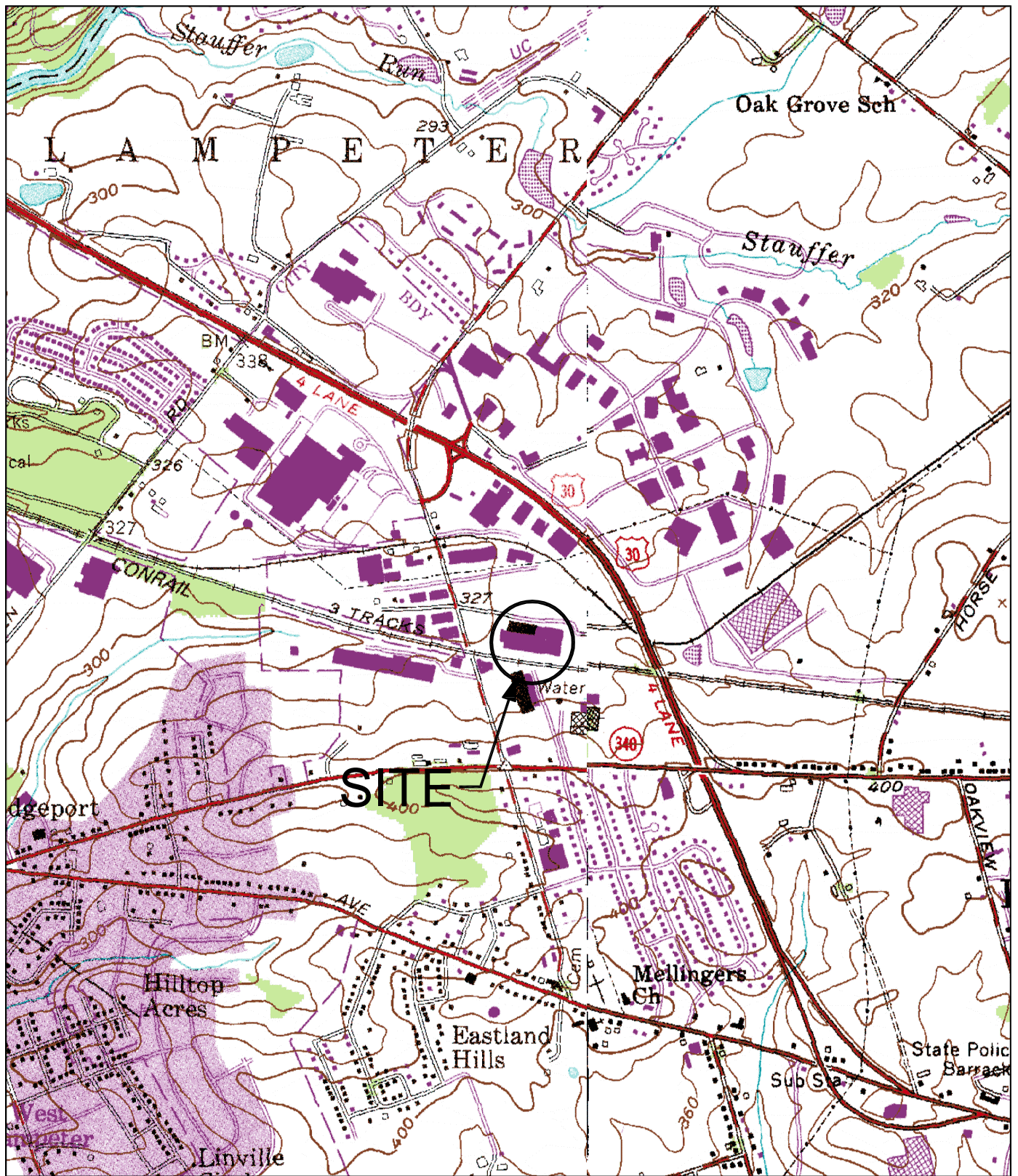
NV = No value

There are no exceedances of the listed screening criteria in the data set.

References: "Act 2 - Final Report, Former Trojan Yacht"; RETTEW Associates, Inc.; July 2008.

Letter Addendum to Final Report Act 2 Clearance; RETTEW Associates, Inc.; October 15, 2008.

FIGURES




0 2000 4000
SCALE IN FEET



REFERENCE:

A Portion of USGS 7.5 Minute Topographic Map;
Lancaster Quadrangle, Pennsylvania; 1956, Photorevised 1987.
A Portion of USGS 7.5 Minute Topographic Map;
Leola Quadrangle, Pennsylvania; 1951, Photoinspected 1992.

TITLE SITE LOCATION MAP			
PROJECT Whittaker Corporation - Trojan Yacht 167 Greenfield Rd., Lancaster, PA 17601			
		4507 NORTH FRONT STREET, SUITE 200 HARRISBURG, PENNSYLVANIA 17110 (717) 635-7901 FAX (717) 635-7902 www.urscorp.com	
SCALE AS SHOWN	DWN. BY AWJ	JOB NO. 20497900	
DATE 8/27/08	APPR. BY	FIG. NO. 1	




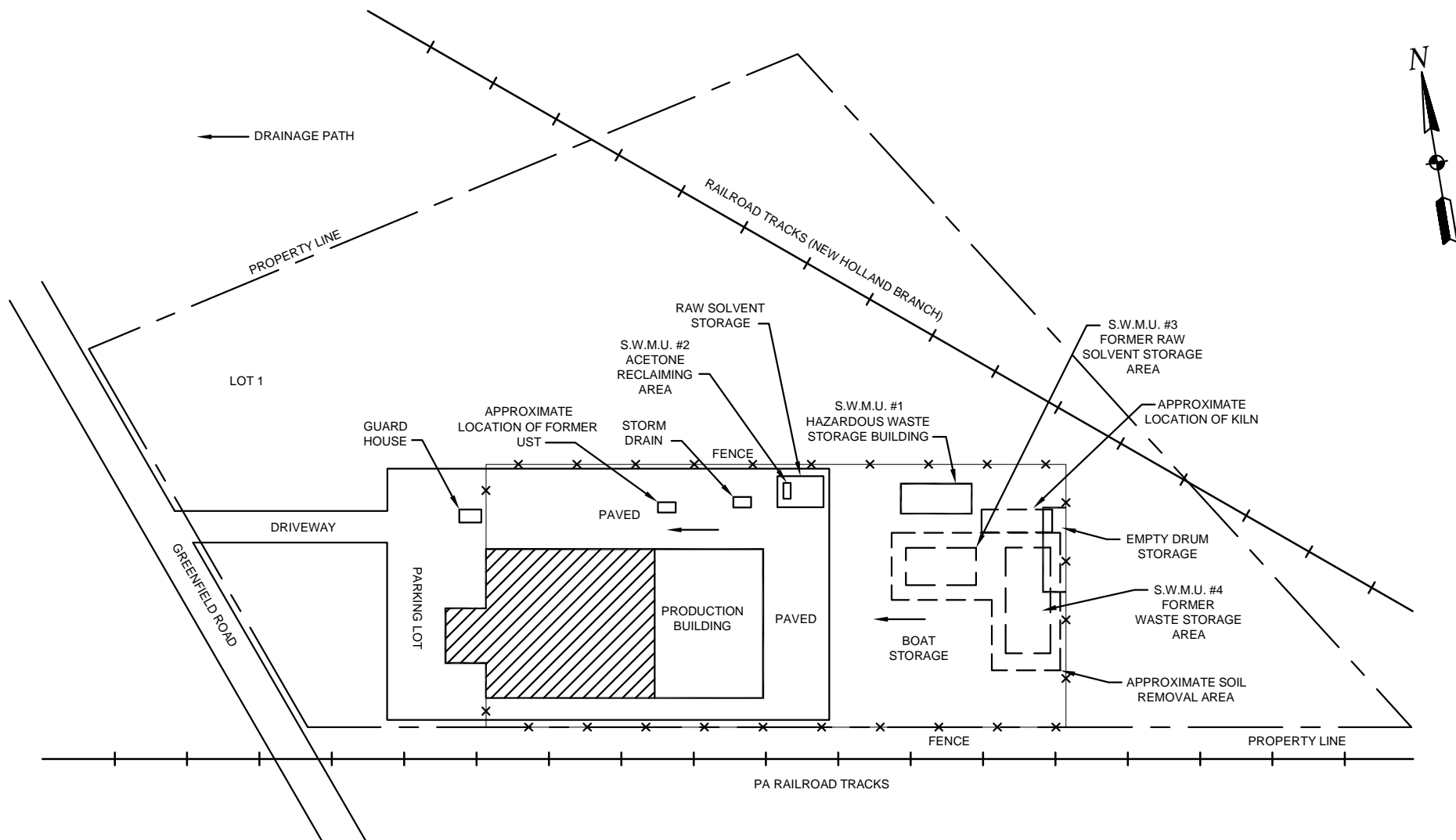
0 100 200 300 400 500
Feet


Site Boundary

REFERENCE:

PAMAP PROGRAM COLOR ORTHOPHOTOS, PA DEPARTMENT
OF CONSERVATION AND NATURAL RESOURCES, BUREAU
OF TOPOGRAPHIC AND GEOLOGIC SURVEY


TITLE AERIAL PHOTOGRAPH OF SITE			
PROJECT WHITTAKER CORPORATION - TROJAN YACHT 167 GREENFIELD RD., LANCASTER, PA 17601			
<div style="display: flex; align-items: center;">  <div> 4507 NORTH FRONT STREET, SUITE 200 HARRISBURG, PENNSYLVANIA 17110 TEL (717) 635-7901 FAX (717) 635-7902 www.urscorp.com </div> </div>			
SCALE 1" = 300'	DWN. BY BAS	JOB NO. 20497900	
DATE 09/03/09	APPR. BY RYW	FIG NO. 2	

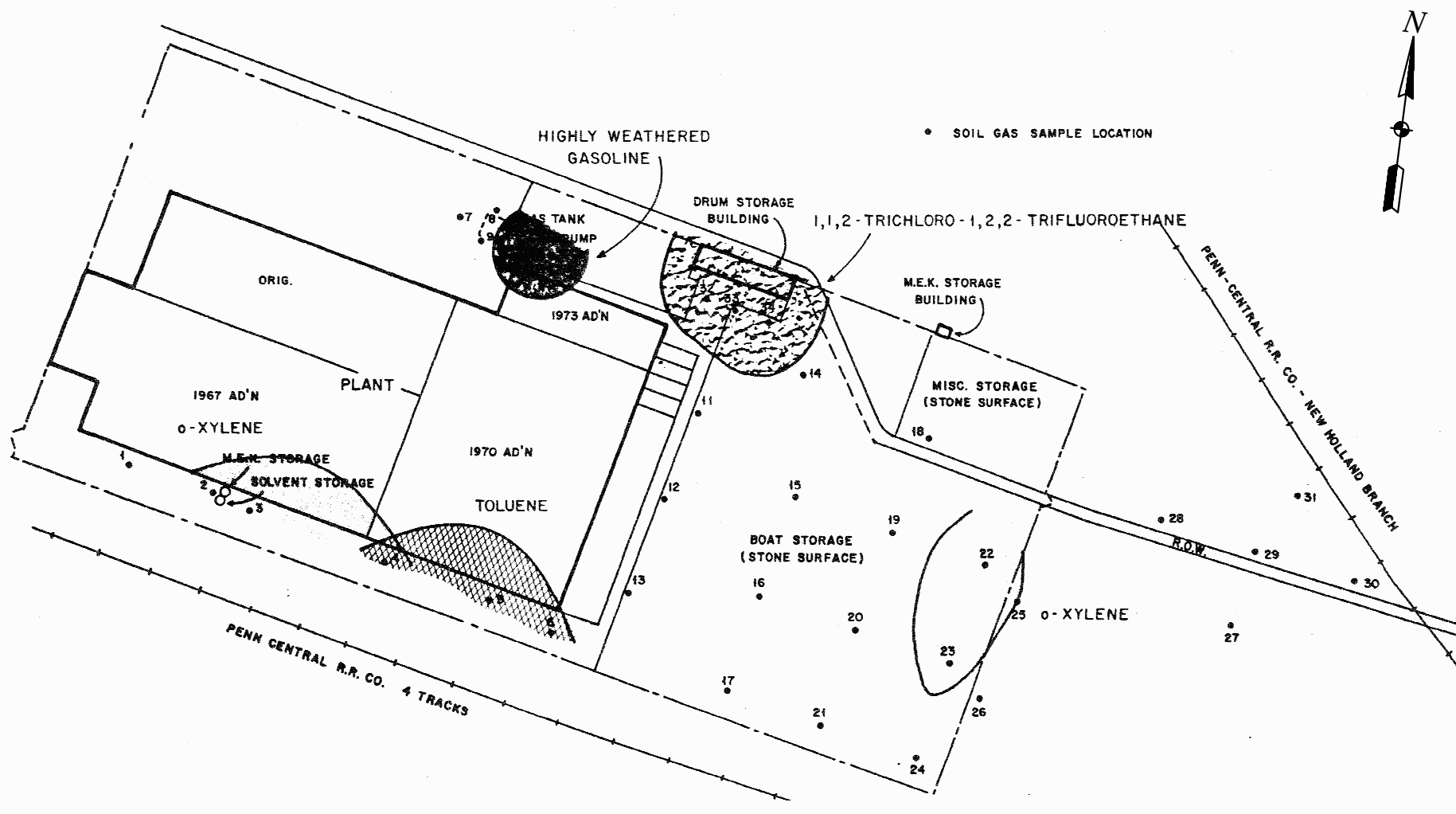


 BASEMENT LOCATED UNDER SHADED PORTION OF BUILDING


REFERENCE:
 "Activity Report April 20-30, 1987" - A.L. Simmons,
 May 7, 1987.
 "Soil Gas Survey" - Target Environmental Services, Inc.,
 October 1988.
 "Environmental Priorities Initiative Preliminary Assessment" -
 NUS Corporation, October 3, 1989.

NOTE: THIS DRAWING IS NOT TO SCALE

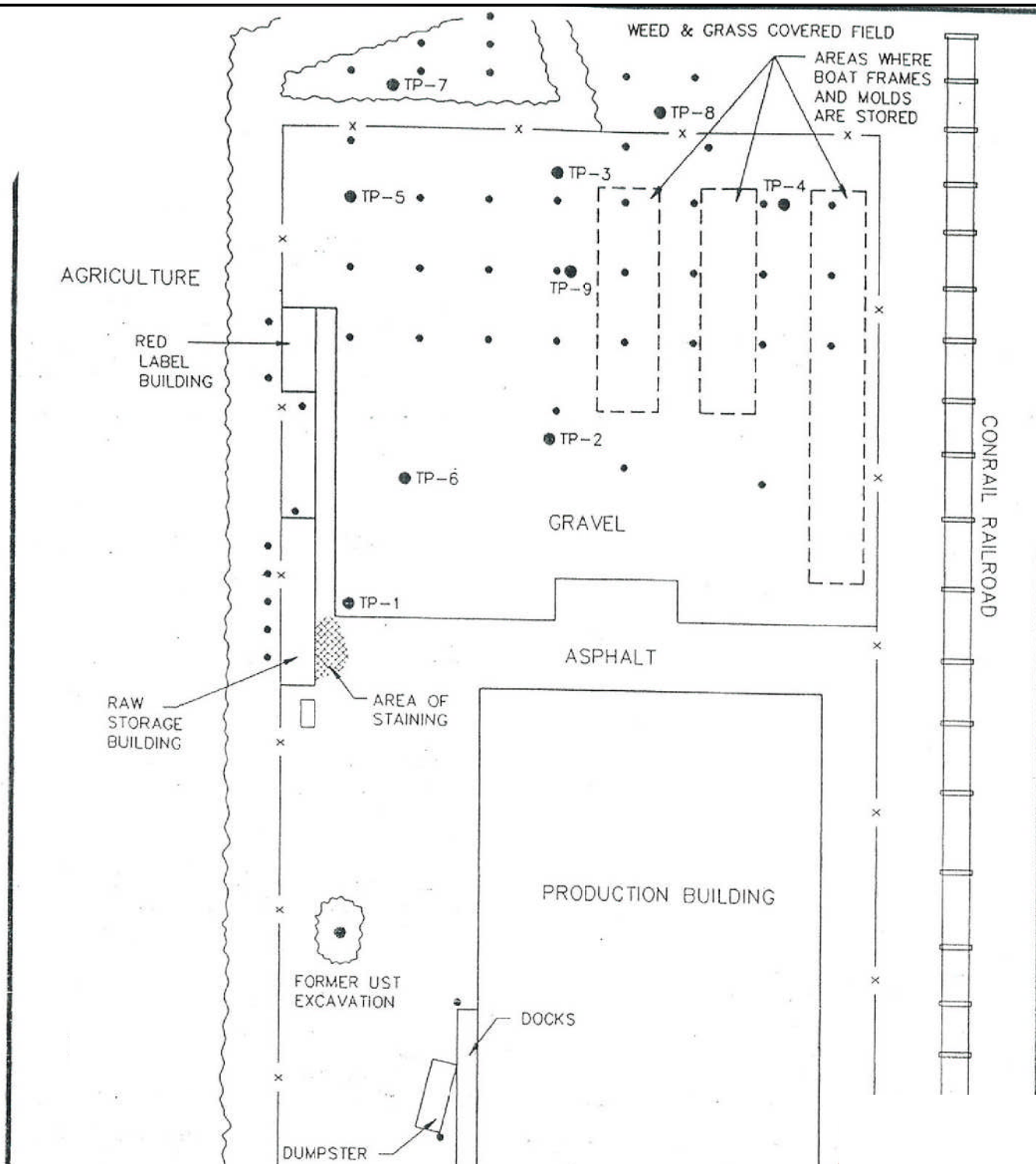
TITLE			
SITE SKETCH SHOWING AOCs/SWMUs			
PROJECT			
Whittaker Corporation - Trojan Yacht 167 Greenfield Rd., Lancaster, PA 17601			
 <div> 4507 NORTH FRONT STREET, SUITE 200 HARRISBURG, PENNSYLVANIA 17110 (717) 635-7901 FAX (717) 635-7902 www.urscorp.com </div>			
SCALE	N.T.S.	DWN. BY	AWJ
DATE	8/26/08	APPR. BY	RYW
JOB NO.	20497900		
FIG. NO.	3		



NOTE: THIS DRAWING IS NOT TO SCALE

TITLE	1988 SOIL GAS LOCATION POINTS AND CONTAMINANTS		
PROJECT	Whittaker Corporation - Trojan Yacht 167 Greenfield Rd., Lancaster, PA 17601		
	 4507 NORTH FRONT STREET, SUITE 200 HARRISBURG, PENNSYLVANIA 17110 (717) 635-7901 FAX (717) 635-7902 www.urscorp.com		
SCALE	N.T.S.	DWN. BY	JAK
DATE	7/08/09	APPR. BY	RYW
		JOB NO.	20497900
		FIG. NO.	4


REFERENCE:
"SOIL GAS SURVEY" PREPARED BY
TARGET ENVIRONMENTAL SERVICES, INC. OCTOBER 1988



LEGEND

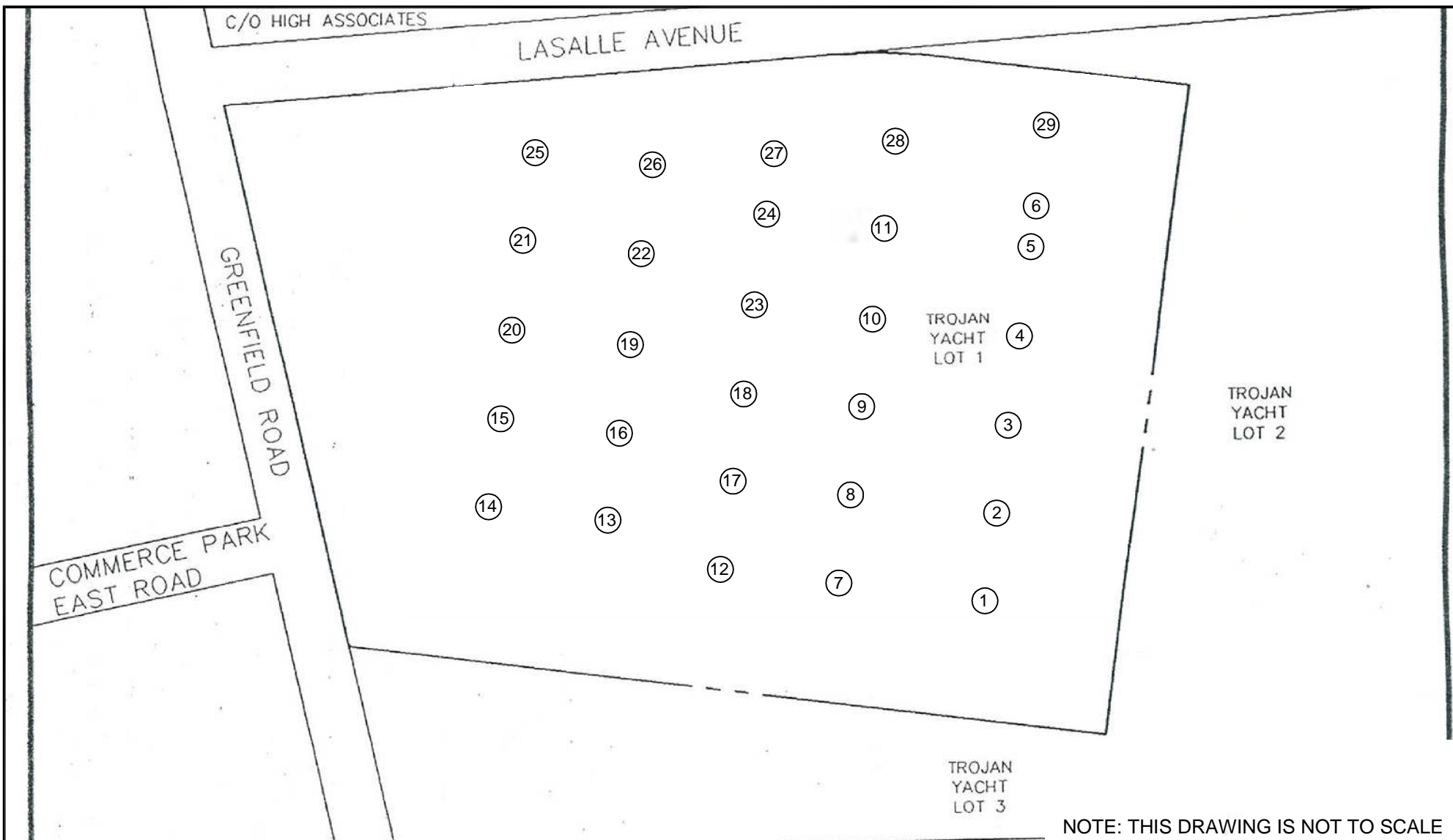
- - SOIL VAPOR
- TP-1 - TEST PIT LOCATION
- UST - UNDERGROUND STORAGE TANK

NOTE: THIS DRAWING IS NOT TO SCALE

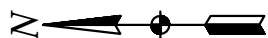
TITLE			
1992 SOIL VAPOR SAMPLING AND TEST PIT LOCATION MAP			
PROJECT			
Whittaker Corporation - Trojan Yacht 167 Greenfield Rd., Lancaster, PA 17601			
<div>  <div> 4507 NORTH FRONT STREET, SUITE 200 HARRISBURG, PENNSYLVANIA 17110 (717) 635-7901 FAX (717) 635-7902 www.urscorp.com </div> </div>			
SCALE	N.T.S.	DWN. BY	JAK
DATE	7/08/09	APPR. BY	RYW
JOB NO.	20497900	FIG. NO.	5

REFERENCE:

"PHASE II ENVIRONMENTAL SITE ASSESSMENT, TROJAN YACHT SITE", RETTEW ASSOCIATES, INC. AUGUST 1994




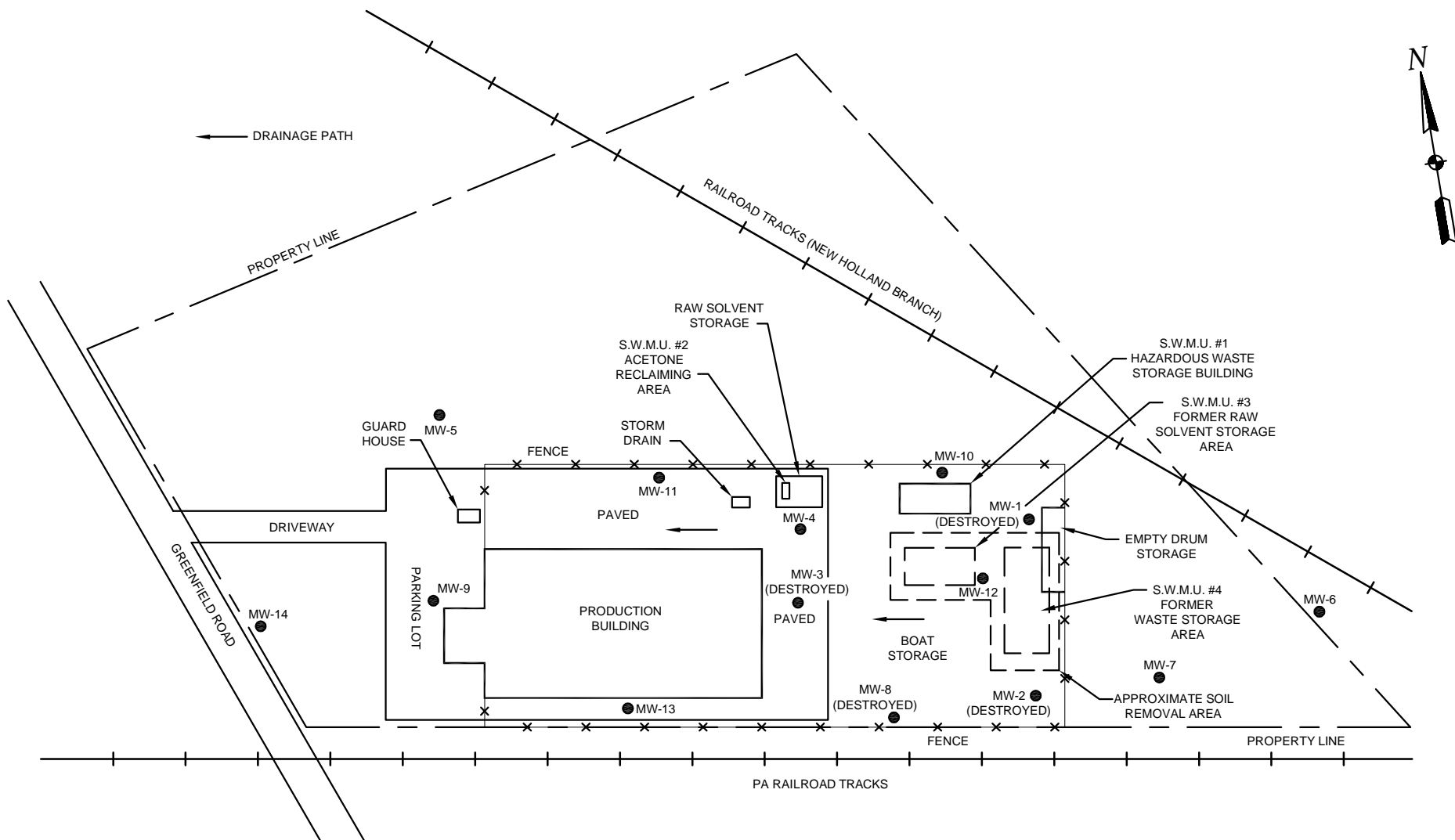
NOTE: THIS DRAWING IS NOT TO SCALE



- ① SURVEY POINTS
 ● WELL LOCATION - MW-5

REFERENCE:
 PHASE II ENVIRONMENTAL SITE ASSESSMENT,
 TROJAN YACHT SITE, RETTEW ASSOCIATES, INC.
 AUGUST 1994

TITLE 1994 SOIL VAPOR SURVEY - LOT 1		
PROJECT Whittaker Corporation - Trojan Yacht 167 Greenfield Rd., Lancaster, PA 17601		
 <div style="float: right;"> 4507 NORTH FRONT STREET, SUITE 200 HARRISBURG, PENNSYLVANIA 17110 (717) 635-7901 FAX (717) 635-7902 www.urscorp.com </div>		
SCALE N.T.S.	DWN. BY JAK	JOB NO. 20497900
DATE 7/08/09	APPR. BY RYW	FIG. NO. 6




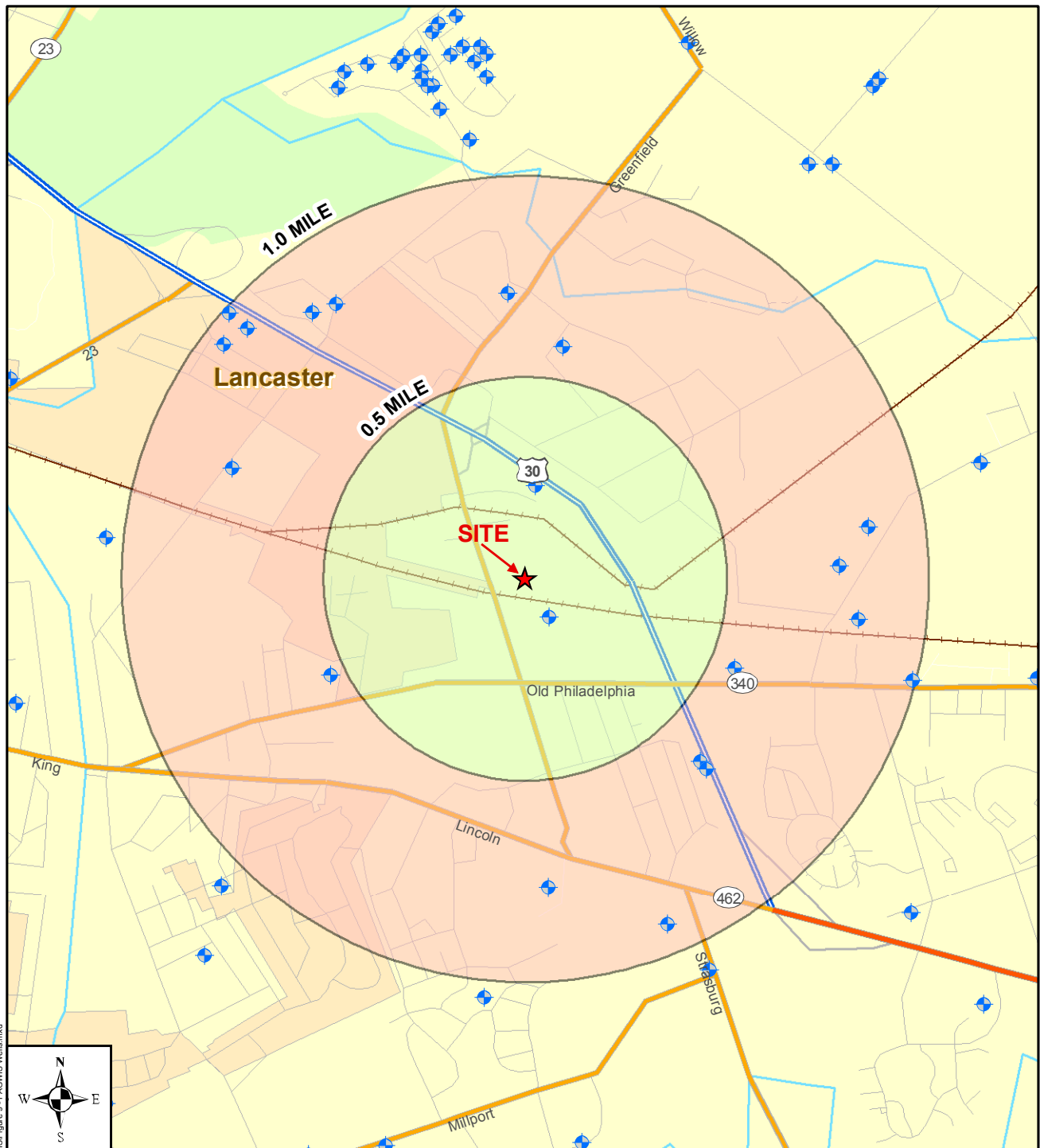
LEGEND

● MONITORING WELL LOCATION

REFERENCE:
Act 2 - Final Report; Former Trojan Yacht
East Lampeter Township, Lancaster County,
Pennsylvania. July 2008

NOTE: THIS DRAWING IS NOT TO SCALE

TITLE APPROXIMATE LOCATION OF GROUNDWATER MONITORING WELLS			
PROJECT Whittaker Corporation - Trojan Yacht 167 Greenfield Rd., Lancaster, PA 17601			
		4507 NORTH FRONT STREET, SUITE 200 HARRISBURG, PENNSYLVANIA 17110 (717) 635-7901 FAX (717) 635-7902 www.urscorp.com	
		SCALE N.T.S.	DWN. BY JAK
DATE 6/16/09	APPR. BY RYW	JOB NO. 20497900	FIG. NO. 7



L:\G1AC PROJECTS\SRCA EIS\2008 EIS\0-306 Whittaker Corp. Trojan Division\GIS\Figure 9 - PaGWIS Wells.mxd



0 1,000 2,000 3,000 4,000 5,000
Feet

Legend

- ★ SITE LOCATION
- ◆ PaGWIS WELLS

REFERENCE:

PENNSYLVANIA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES. PENNSYLVANIA GROUNDWATER INFORMATION SYSTEM, LAST MODIFIED ON SEPTEMBER 13, 2008.

TITLE

WELLS LOCATED WITHIN ONE MILE

PROJECT

WHITTAKER CORPORATION - TROJAN YACHT
167 GREENFIELD RD., LANCASTER, PA 17601



4507 NORTH FRONT STREET, SUITE 200
HARRISBURG, PENNSYLVANIA 17110
TEL (717) 635-7901 FAX (717) 635-7902
www.urscorp.com

SCALE

1:24,000

DWN. BY

BAS

JOB NO.

20497900

DATE

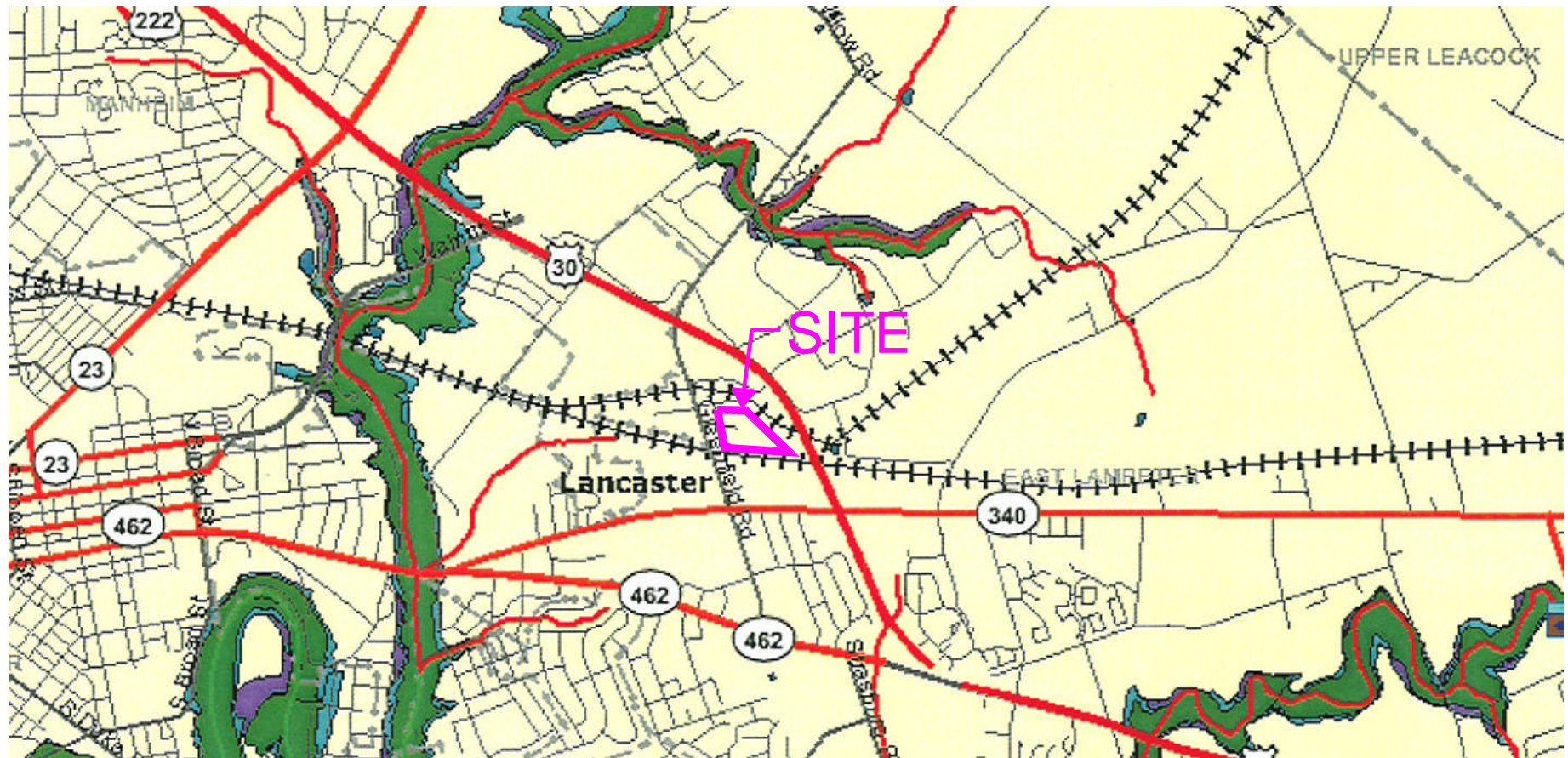
09/03/09

APPR. BY







RYW

FIG NO.

9



LEGEND


-  FEMA 100 YEAR FLOODPLAIN
-  FLOODPLAINS STATEWIDE
-  NHD WATERBODIES
-  STREAMS
-  PAGWIS WELL WATER INVENTORY
-  STATE HIGHWAY

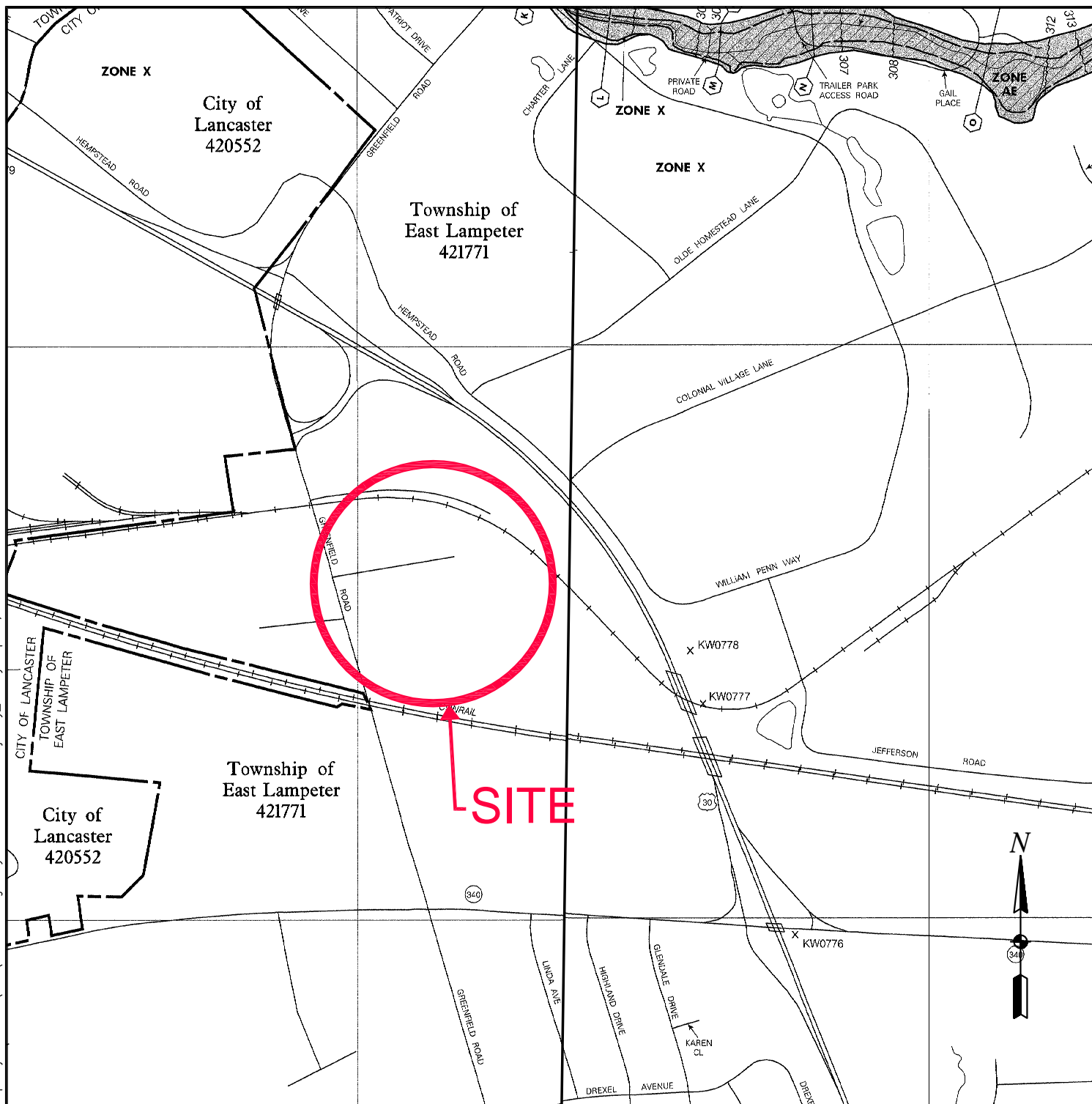
REFERENCE:

Pennsylvania Department of Environmental Protection:
Geospatial Data Center. "eMapPA." 2004. Pennsylvania
Department of Environmental Protection. 13 June 2008




0 3000 6000
SCALE IN FEET



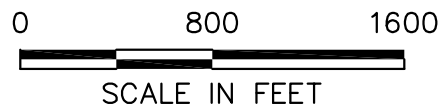
TITLE			
STREAM QUALITY MAP			
PROJECT			
Whittaker Corporation - Trojan Yacht 167 Greenfield Rd., Lancaster, PA 17601			
		4507 NORTH FRONT STREET, SUITE 200 HARRISBURG, PENNSYLVANIA 17110 (717) 635-7901 FAX (717) 635-7902 www.urscorp.com	
SCALE	1" = 3000'	DWN. BY	AWJ
DATE	8/26/08	APPR. BY	RYW
		JOB NO.	20497900
		FIG. NO.	10




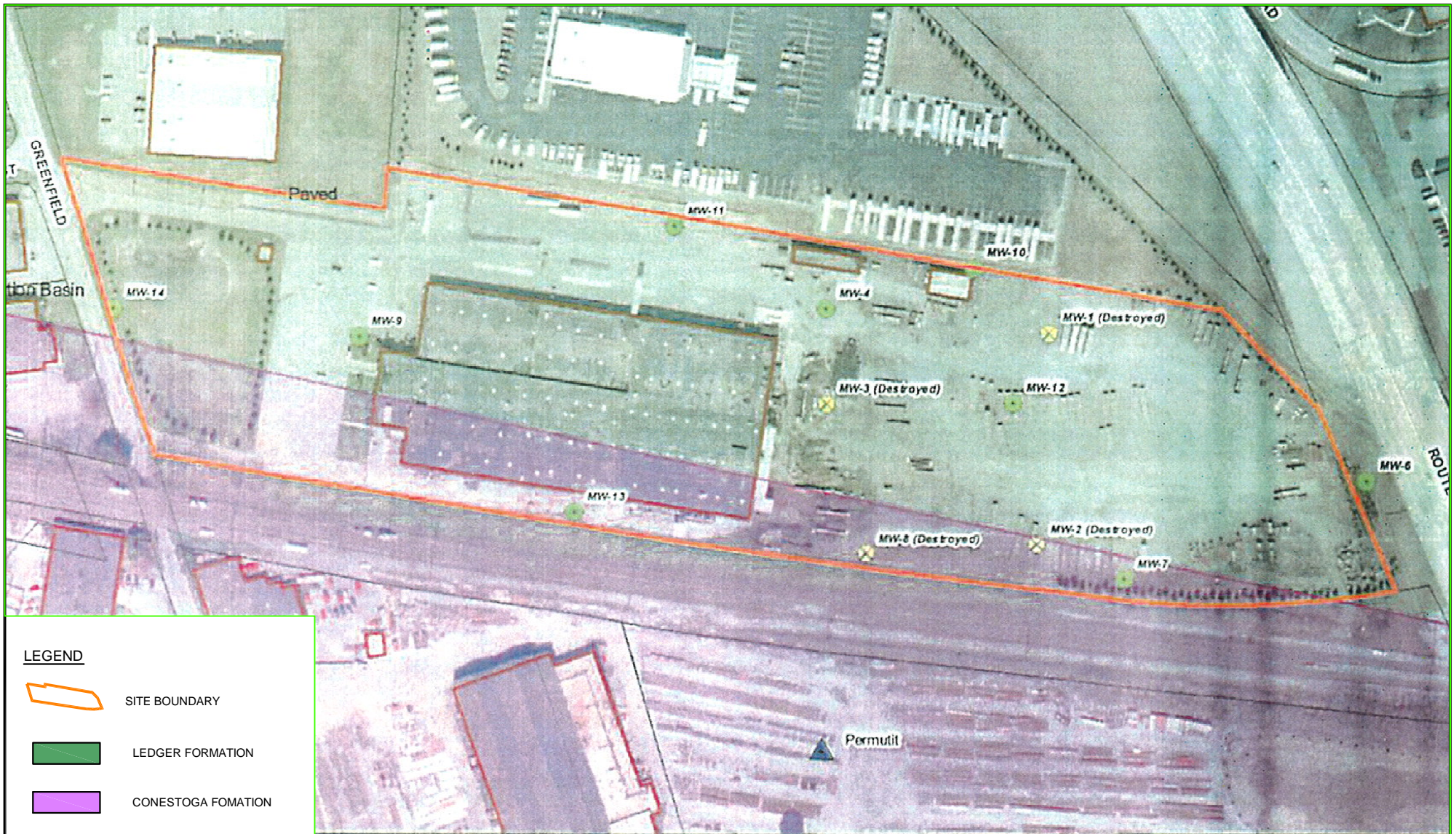
LEGEND

-  = BASE FLOOD ELEVATION DETERMINED (ZONE AE)
-  = AREAS OF 0.2% ANNUAL CHANCE FLOOD (ZONE X)
-  = AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN (ZONE X)




NOTE: A portion of FEMA Flood Insurance Rate Maps; Map Number 42071C0367 E, Panel 367, Lancaster County, Pennsylvania, April 19, 2005.

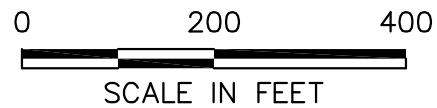


TITLE FEMA FLOODPLAIN MAP			
PROJECT Whittaker Corporation - Trojan Yacht 167 Greenfield Rd., Lancaster, PA 17601			
		4507 NORTH FRONT STREET, SUITE 200 HARRISBURG, PENNSYLVANIA 17110 (717) 635-7901 FAX (717) 635-7902 www.urscorp.com	
		SCALE AS SHOWN	JOB NO. 20497900
DATE 8/27/08	DWN. BY AWJ	APPR. BY RYW	FIG. NO. 11




LEGEND

-  SITE BOUNDARY
-  LEDGER FORMATION
-  CONESTOGA FORMATION



REFERENCE:
 ACT 2 - FINAL REPORT,
 FORMER TROJAN YACHT EAST LAMPETER TOWNSHIP,
 LANCASTER COUNTY, PENNSYLVANIA, JUNE 2008.

TITLE SITE GEOLOGY			
PROJECT Whittaker Corporation - Trojan Yacht 167 Greenfield Rd., Lancaster, PA 17601			
		4507 NORTH FRONT STREET, SUITE 200 HARRISBURG, PENNSYLVANIA 17110 (717) 635-7901 FAX (717) 635-7902 www.urscorp.com	
		SCALE 1" = 3000'	DWN. BY JAK
DATE 11/03/09	APPR. BY RYW	JOB NO. 20497900	FIG. NO. 12

APPENDIX A
INVENTORY OF DOCUMENTATION
AND
ELECTRONIC LIBRARY OF NON-USEPA DOCUMENTS

APPENDIX A
INVENTORY OF DOCUMENTATION
AND
ELECTRONIC LIBRARY OF NON-USEPA DOCUMENTS
Former Whitaker Corporation - Trojan Yacht Division
Lancaster, Pennsylvania

1. **September 16, 1969:** Layout and Grading Plan for Greenfield Road – USEPA files
2. **August 18, 1980:** Part A Permit – USEPA files
3. **November 18, 1980:** Letter from Whittaker for Part A, Forms 1 and 3 (not included) – USEPA files
4. **December 22, 1980:** Letter from USEPA regarding receipt of Part A Permit – USEPA files
5. **1981:** Whittaker Annual Report – USEPA files
6. **February 20, 1981:** General Information Permit – USEPA files
7. **May 18, 1981:** Letter from Trojan Yacht to USEPA regarding process code error – USEPA files
8. **July 7, 1981:** USEPA General Information Permit – PADEP files
9. **July 23, 1981:** Letter from Trojan to USEPA with photos and information – USEPA files
10. **August 12, 1981:** Letter from USEPA regarding Interim Status – USEPA files
11. **November 6, 1981:** Inspection Report – PADEP files
12. **December 1, 1981:** USEPA General Information – PADEP files
13. **May 10, 1982:** Letter containing resin ingredients – USEPA and RETTEW files
14. **July 8, 1982:** Inspection Report – PADEP files
15. **July 20, 1982:** Inspection Report – PADEP files
16. **November 5, 1982:** Letter from PADER requesting Part B permit – USEPA and RETTEW files
17. **March 18, 1983:** Inspection Report – PADEP files
18. **April 8, 1983:** Letter from PADER to Trojan Yacht requesting Part B – USEPA files
19. **August 17, 1983:** Hazardous Waste Inspection Report with violations – USEPA files
20. **November 21, 1983:** NOV from PADER requesting Part B – USEPA files
21. **November 30, 1983:** Letter from Trojan Yacht to PADER regarding Part B application – PADEP and USEPA files
22. **January 3, 1984:** NOV from USEPA to Trojan Yacht Part B submittal – USEPA files
23. **February 2, 1984:** Letter from Trojan Yacht to USEPA regarding Part B application – USEPA files
24. **May 2 1984:** Hazardous Waste Inspection Report – PADEP and USEPA files
25. **December 10, 1985:** Hazardous Waste Facility Liability Endorsement – USEPA files
26. **December 18, 1986:** Hazardous Waste Inspection Report, violations – USEPA files
27. **December 24, 1986:** NOV from December 18 inspection – USEPA files
28. **January 14, 1987:** Hazardous Waste Inspection Report, 1 violation – USEPA files
29. **January 23, 1987:** BOL Analytical Results – PADEP files
30. **February 3, 1987:** USEPA memo indicating no further action – USEPA files
31. **February 10, 1987:** NOV for January soil sampling – USEPA files
32. **March 23, 1987:** Hazardous Waste Inspection Report, cleanup digging – USEPA files
33. **March 26, 1987:** Hazardous Waste Inspection Report, cleanup digging – USEPA files
34. **March 27, 1987:** Hazardous Waste Inspection Report, soil cleanup – PADEP and USEPA files
35. **April 2, 1987:** Hazardous Waste Inspection Report, cleanup digging – USEPA files
36. **April 9, 1987:** BOL Analytical Results – PADEP files
37. **April 14, 1987:** BOL Analytical Results – PADEP files

38. **April 15, 1987:** USEPA memo regarding inspection violations – USEPA files
39. **April 16 1987:** BOL Analytical Results – PADEP files
40. **April 22, 1987:** VOC Analytical Results – PADEP files
41. **April 27, 1987:** BOL VOC Analytical Results – PADEP files
42. **April 28, 1987:** BOL VOC Analytical Results – PADEP files
43. **April 29, 1987:** Inspection Report – PADEP files
44. **April 29, 1987:** PADER memo regarding status of clean-up – USEPA files
45. **May 1, 1987:** Letter from PADER regarding portable rotary dryer – PADEP files
46. **May 10, 1987:** Remedial Investigation/Response Action Report – USEPA files
47. **June 3, 1987:** Field Verification of Hazardous Waste Activity – PADEP files
48. **June 12, 1987:** PADER memo to Keystone Block Company regarding soil removal – RETTEW files
49. **June 16, 1987:** Inspection Report – PADEP files
50. **June 17, 1987:** USEPA memo regarding inspection violations – USEPA files
51. **June 18, 1987:** PADER letter regarding clean-up – PADEP files
52. **June 30, 1987:** Quarterly Hazardous Waste Report – PADEP files
53. **August 24, 1987:** Letter from Trojan regarding spill – PADEP files
54. **September 11, 1987:** Letter from PADER regarding non-compliance Hazardous Waste Activity – USEPA files
55. **October 1988:** Soil Gas Survey, Trojan Yacht by Target Environmental Services – RETTEW files
56. **November 14, 1988:** An Environmental Review by Carlos Sterns & Associates and Mark Schultz & Associates – RETTEW files
57. **March 10, 1989:** Letter from USEPA to Trojan Yacht requesting SWMU information – USEPA files
58. **April 17, 1989:** Letter from Trojan Yacht to USEPA regarding interim status – USEPA files
59. **August 29, 1989:** Hazardous Waste Inspection Report, no violations – PADEP and USEPA files
60. **October 3, 1989:** Preliminary Assessment Report (PAR) by NUS – USEPA files
61. **November 24, 1989:** USEPA cover letter for PAR – PADEP files
62. **January 25, 1990:** AST Registration – PADEP files
63. **July 31, 1991:** Compliance Monitoring Inspection, no violations/facility closure – PADEP and USEPA files
64. **January 7, 1992:** Memo from Carlos Stern to Douglas Weidman – RETTEW files
65. **February 7, 1992:** Phase I Environmental Site Assessment Letter Report by RETTEW – PADEP files
66. **September 9, 1992:** Hazardous Waste Inspection Report – facility closed – USEPA files
67. **October 1, 1992:** Inspection Report – PADEP files
68. **October 16, 1992:** Cover letter for report from RETTEW to PADER (report not included) – RETTEW files
69. **November 11, 1992:** Memo from Rick Friedman to Karen Ball of Buchannan-Ingersoll – RETTEW files
70. **April 13, 1993:** Fax of analytical VOA results for Permutit well from Lin Good of High Associates to Ed Pinero of RETTEW – RETTEW files
71. **April 21, 1993:** Letter from RETTEW to Douglas Weidman regarding analytical results – RETTEW files
72. **August, 1994:** Phase II Environmental Site Assessment, Trojan Yacht Site by RETTEW Associates, Inc. – PADEP files
73. **August 23, 1994:** Letter from RETTEW to PADER regarding Buyer/Seller Agreement Site Investigation – PADEP files

74. **September 2, 1994:** Inspection Report – PADEP files
75. **September 30, 1994:** Letter from RETTEW to Shippen Realty Partners regarding PADER response – PADER files
76. **October 24, 1994:** Letter from Barley, Snyder, Senft & Cohen to Russell, Krafft & Gruber regarding Shippen Realty Partner Sale to Bypass Development
77. **November 1, 1994:** Letter from Russell, Krafft & Gruber to RETTEW regarding Shippen/Bypass – PADEP files
78. **November 7, 1994:** Letter from attorney regarding sale of Trojan Yacht to Bypass Development – PADEP files
79. **November 16, 1994:** Letter from RETTEW to Brown Transmission and Bearings Company regarding transaction – PADEP files
80. **November 22, 1994:** Letter from PADER to RETTEW regarding Site Assessment – PADEP files
81. **December 19, 1994:** Letter from RETTEW to Shippen Realty Partners regarding PADER comments – PADEP files
82. **January 6, 1995:** Letter from RETTEW to Shippen Realty Partners regarding contact – PADEP files
83. **January 30, 1995:** Letter from RETTEW to Brown Transmission and Bearings Company regarding invoicing – PADEP files
84. **June 6, 1998:** AST System Storage Report Form – PADEP files
85. **July 15, 2002:** AST System Storage Report Form – PADEP files
86. **August 22, 2002:** AST System Storage Report Form – PADEP files
87. **March 20, 2006:** Letter Report by GCI “Initial Groundwater Investigation” – RETTEW files
88. **April 6, 2007:** Letter from USEPA to Whittaker Corp. regarding RCRA Corrective Action Baseline – USEPA files
89. **July, 2008:** Act 2 Report – PADEP files
90. **August 5, 2008:** Land Recycling Program, Final Report Summary – PADEP files
91. **August 13, 2008:** PADEP letter acknowledging receipt of Act 2 Report – PADEP files
92. **October 15, 2008:** Letter Addendum to Final Report Act 2 Clearance – RETTEW files
93. **October 28, 2008:** Approval of Final Report – PADEP files

APPENDIX B
PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG

Client Name:

PADEP

Site Location:

167 Greenfield Road
Lancaster, Pennsylvania 17601

Project No.:

20497900

Photo No:

01

Date:

06/29/09

Direction Photo Taken:

East

Description:

Entrance to the former
Whittaker Trojan Yacht
facility



Photo No:

02

Date:

06/29/09

Direction Photo Taken:

South

Description:

Gated entrance at the west
end of the warehouse
building.





PHOTOGRAPHIC LOG

Client Name:

PADEP

Site Location:

167 Greenfield Road
Lancaster, Pennsylvania 17601

Project No.:

20497900

Photo No:

03

Date:

06/29/09

Direction Photo Taken:

Southeast

Description:

West end of the warehouse building.



Photo No:

04

Date:

06/29/09

Direction Photo Taken:

East

Description:

Surface water drainage to the north of the building.





PHOTOGRAPHIC LOG

Client Name:

PADEP

Site Location:

167 Greenfield Road
Lancaster, Pennsylvania 17601

Project No.:

20497900

Photo No:

05

Date:

06/29/09

Direction Photo Taken:

Northwest

Description:

Tractor trailers parked along southern boundary of property.



Photo No:

06

Date:

06/29/09

Direction Photo Taken:

West

Description:

Location of former 6,000 gallon UST.





PHOTOGRAPHIC LOG

Client Name:

PADEP

Site Location:

167 Greenfield Road
Lancaster, Pennsylvania 17601

Project No.:

20497900

Photo No:

07

Date:

06/29/09

Direction Photo Take:

Northeast

Description:

Former SWMU #2.
Currently used for roadway
salt storage.



Photo No:

08

Date:

06/29/09

Direction Photo Taken:

Northeast

Description:

Loading dock area adjacent
to former SWMU #2.





PHOTOGRAPHIC LOG

Client Name:

PADEP

Site Location:

167 Greenfield Road
Lancaster, Pennsylvania 17601

Project No.:

20497900

Photo No:

09

Date:

06/29/09

Direction Photo Taken:

West

Description:

Salt inside former SWMU#2 building.

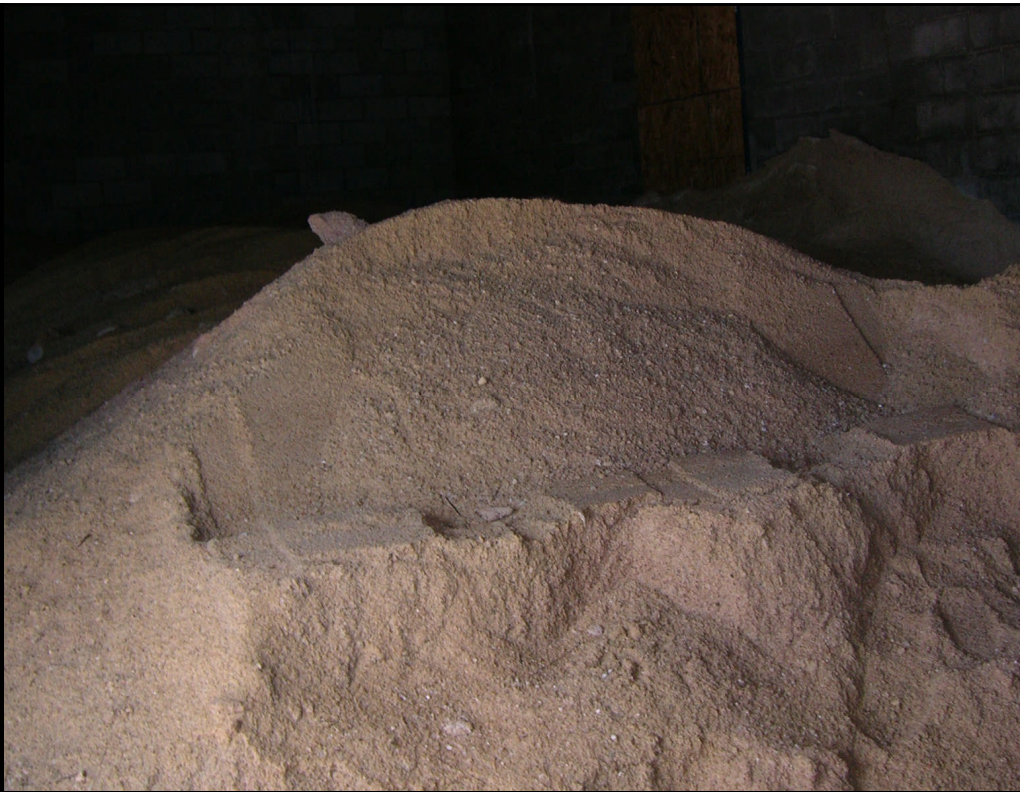


Photo No:

10

Date:

06/29/09

Direction Photo Taken:

East

Description:

Lava melt stored inside former SWMU#2 building.





PHOTOGRAPHIC LOG

Client Name:

PADEP

Site Location:

167 Greenfield Road
Lancaster, Pennsylvania 17601

Project No.:

20497900

Photo No:

11

Date:

06/29/09

Direction Photo Taken:

North

Description:

Former SWMU #1.
Currently used for storage
and truck repair.



Photo No:

12

Date:

06/29/09

Direction Photo Taken:

East

Description:

Inside of former SWMU #1.





PHOTOGRAPHIC LOG

Client Name:

PADEP

Site Location:

167 Greenfield Road
Lancaster, Pennsylvania 17601

Project No.:

20497900

Photo No:

13

Date:

06/29/09

Direction Photo Taken:

West

Description:

Empty fuel oil tank stored in former SWMU #1 building.



Photo No:

14

Date:

06/29/09

Direction Photo Taken:

Southeast

Description:

Unlabeled and used oil drums stored in former SWMU #1 building.





PHOTOGRAPHIC LOG

Client Name:

PADEP

Site Location:

167 Greenfield Road
Lancaster, Pennsylvania 17601

Project No.:

20497900

Photo No:

15

Date:

06/29/09

Direction Photo Taken:

Northeast

Description:

Batteries and tanks stored
in former SWMU#1
building.



Photo No:

16

Date:

06/29/09

Direction Photo Taken:

South

Description:

Mobile housing units parked
along southern side of
property.





PHOTOGRAPHIC LOG

Client Name:

PADEP

Site Location:

167 Greenfield Road
Lancaster, Pennsylvania 17601

Project No.:

20497900

Photo No:

17

Date:

06/29/09

Direction Photo Taken:

Southwest

Description:

Concrete mixing facility
southeast of building.



Photo No:

18

Date:

06/29/09

Direction Photo Taken:

Southwest

Description:

AST adjacent to concrete
mixing area.





PHOTOGRAPHIC LOG

Client Name:

PADEP

Site Location:

167 Greenfield Road
Lancaster, Pennsylvania 17601

Project No.:

20497900

Photo No:

19

Date:

06/29/09

Direction Photo Taken:

West

Description:

East end of former
production building.



Photo No:

20

Date:

06/29/09

Direction Photo Taken:

East

Description:

South side of former
production building.





PHOTOGRAPHIC LOG

Client Name:

PADEP

Site Location:

167 Greenfield Road
Lancaster, Pennsylvania 17601

Project No.:

20497900

Photo No:

21

Date:

06/29/09

Direction Photo Taken:

North

Description:

Double-walled tank with
petroleum/oil odor.



Photo No:

22

Date:

06/29/09

Direction Photo Taken:

North

Description:

Former MEK storage area
located on south side of
former production building.





PHOTOGRAPHIC LOG

Client Name:

PADEP

Site Location:

167 Greenfield Road
Lancaster, Pennsylvania 17601

Project No.:

20497900

Photo No:

23

Date:

06/29/09

Direction Photo Taken:

East

Description:

Interior of former production building.



Photo No:

24

Date:

06/29/09

Direction Photo Taken:

West

Description:

Interior of former production building.





PHOTOGRAPHIC LOG

Client Name:

PADEP

Site Location:

167 Greenfield Road
Lancaster, Pennsylvania 17601

Project No.:

20497900

Photo No:

25

Date:

06/29/09

Direction Photo Taken:

South

Description:

Duct work for forced air system to basement of the former production building.



Photo No:

26

Date:

06/29/09

Direction Photo Taken:

West

Description:

Basement hallway beneath production building.





PHOTOGRAPHIC LOG

Client Name:

PADEP

Site Location:

167 Greenfield Road
Lancaster, Pennsylvania 17601

Project No.:

20497900

Photo No:

27

Date:

06/29/09

Direction Photo Taken:

South

Description:

Typical room in the basement beneath the production building.



Photo No:

28

Date:

06/29/09

Direction Photo Taken:

West

Description:

Water heaters in basement of the former production building.



APPENDIX C

STORAGE TANK REGISTRATION INFORMATION

REGISTRATION OF STORAGE TANKS

STATE USE ONLY

DATE RECEIVED: JAN 31 1990

IN ACCORDANCE WITH SECTIONS 303 AND 503 OF THE STORAGE TANK AND SPILL PREVENTION ACT, OWNERS OF REGULATED STORAGE TANKS ARE REQUIRED TO REGISTER THEIR TANKS WITH THE DEPARTMENT AND TO PAY A REGISTRATION FEE.

AMOUNT RECEIVED: \$350.00

INSTRUCTIONS

Please type or print in ink all items except "Signature" in Section V. This form is to be completed for each FACILITY which has regulated storage tanks. If there are more than 10 underground or aboveground tanks, photocopy the reverse side of this form, and staple continuation sheets to this form.

Section I. Owner Information - Name, business mailing address and phone number of OWNER of the storage tank(s) at the facility. Please include county and Federal Identification Number, if none include your Social Security Number.

Section II. Type of Owner - Mark the appropriate box.

Section III. Facility Information - Name and physical location (not P.O. Box) of FACILITY. Please include county and township in which FACILITY is located. Include the Facility Identification No. if known.

Section IV. Type of Facility - Mark the appropriate box, if applicable.

Section V. Description of Storage Tanks - This section is for recording information about each regulated storage tank at the facility. Information for aboveground tanks is to be recorded in Part A. Information for underground tanks is to be recorded in Part B.

1. Tank Registration Number - The registration numbers to be recorded for underground tanks are "001", "002", "003", etc. The registration numbers to be recorded for aboveground tanks are "001A", "002A", "003A", etc. The "A" has already been printed on the form for your convenience.
2. Status - Indicate whether the tank is currently in use, temporarily out of use, or permanently out of use. Permanently out of use means properly closed in place with an inert solid material. Do not include tanks which have been removed.
3. Date of Installation - Specify the month and year the tank was completely installed. For instance, "0190", for January, 1990. If unknown, write "0000".
4. Capacity - Specify the total design or maximum capacity of the tank in GALLONS. If unknown, write "unknown".
5. Substance Currently or Last Stored - Indicate the substance(s), currently or last stored. If a hazardous substance, please indicate CERCLA Name and CAS Number. If Other is indicated, please specify.
6. Tank Has Been Issued Fire Safety Approval or Permit - Indicate whether the tank has been approved or permitted by the Pennsylvania State Police, Fire Marshal Division; or local agency under their jurisdiction for fire safety.
7. Registration Fee - Determine registration fee due PER TANK as indicated below. A registration fee is NOT required for tanks permanently out of use.

A. Aboveground tanks

1. Up to and including 5,000 gallons - \$50 per tank
2. 5,001 to and including 50,000 gallons - \$125 per tank
3. Greater than 50,000 gallons - \$300 per tank

B. Underground Tanks - \$50 per tank

Record the total registration fee due for all aboveground tanks in the space provided (A). Record the total registration fee due for all underground tanks in the space provided (B). Record the total registration fee due for all aboveground and underground tanks in the space provided (A + B). Submit a check or money order, for the total registration fee due, made payable to: Dept. of Environmental Resources.

Section VI. Certification - This section is to be completed by the OWNER. Please type or print the name and official title of the OWNER. The OWNER must also sign and record the date the application was examined.

Section VII. Nameplate Information - Complete this section for each aboveground tank greater than 5,000 gallon capacity. Use the same Tank Registration Number as identified in Section VI.

PLEASE SEND COMPLETED ORIGINAL FORM AND CHECK TO:

PA Department of Environmental Resources
Bureau of Water Quality Management
Registration of Storage Tanks

(and the appropriate address below, depending on where your FACILITY is located)

1875 New Hope Street
Norristown, PA 19401

90 East Union Street -
2nd Floor
Wilkes-Barre, PA 18701

One Ararat Blvd.
Harrisburg, PA 17110

200 Pine Street
Williamsport, PA 17701

Highland Bldg. - 6th Floor
121 South Highland Mall
Pittsburgh, PA 15206

1012 Water Street
Meadville, PA 16335

Counties
Berks, Bucks, Chester, Delaware,
Lehigh, Montgomery, Northampton,
Philadelphia,

Counties
Carbon, Lackawanna, Luzerne,
Monroe, Pike, Schuylkill,
Susquehanna, Wayne, Wyoming,

Counties
Adams, Bedford, Blair, Cumberland,
Dauphin, Franklin, Fulton,
Huntingdon, Juniata, Lancaster,
Lebanon, Mifflin, Perry, York

Counties
Bradford, Cameron, Centre, Clinton,
Clearfield, Columbia, Lycoming,
Montour, Northumberland, Potter,
Snyder, Sullivan, Tioga, Union

Counties
Allegheny, Armstrong, Beaver,
Cambria, Fayette, Greene, Indiana,
Somerset, Washington,
Westmoreland

Counties
Butler, Clarion, Crawford, Elk, Erie,
Forest, Jefferson, Lawrence,
McKean, Mercer, Venango, Warren

I. OWNER INFORMATION

Owner Name Trojan Yacht
Tax Identification No. 59-2472609
Mailing Address P. O. Box 3571
167 Greenfield Road
City Lancaster State PA Zip 17603-
County Lancaster Phone No. (717) 397-2471

III. FACILITY INFORMATION

Facility Name Trojan Yacht
Facility Identification No. 3-629959
Street Address (P.O. Box not acceptable) 167 Greenfield Road
City Lancaster State PA Zip 17601
County Lancaster Township E. Lampeter

II. TYPE OF OWNER (Mark only one)

- ☐ Federal Government ☒ Corporate
☐ State Government ☐ Private
☐ Local Government

IV. TYPE OF FACILITY (Mark only one, if applicable)

- ☐ Farm
☐ Municipal
☐ Residential

Facility Name Trojan Yacht

V. DESCRIPTION OF STORAGE TANKS (Complete for each regulated storage tank at this location)

A. ABOVEGROUND TANKS

TANK REGISTRATION NUMBER				STATUS	DATE OF INSTALLATION MO YR				CAPACITY (GALLONS)				SUBSTANCE (CURRENTLY OR LAST STORED)				CERCLA NAME AND CAS NUMBER		OTHER SUBSTANCE NAME	FIRE SAFETY PERMIT	REGIS- TRATION FEE		STATE USE ONLY						
0	0	1	A	C	0	0	7	0				5	0	0	0	I			Styrene 100-42-5		N		5	0		5	0		
0	0	2	A	C	0	0	7	0				5	0	0	0	I			Styrene 100-42-5		N		5	0		5	0		
0	0	3	A	C	0	0	0	0				1	0	0	0	I			Acetone 67-64-1		N		5	0		5	0		
0	0	4	A	C	0	0	0	0				1	0	0	0	I			"		N		5	0		5	0		
0	0	5	A	C	0	0	0	0					2	7	5	I			Toluene 108-88-3		N		5	0		5	0		
0	0	6	A	C	0	0	0	0					2	7	5	I			"		N		5	0		5	0		
0	0	7	A	C	0	0	0	0					2	7	5	I			Stoddart Solvent 8052-41-3		N		5	0		5	0		
			A																										
			A																										
			A																										
TOTAL ABOVEGROUND TANK FEE (A)																							3	5	0		3	5	0

B. UNDERGROUND TANKS

[illegible]

KEY FOR COMPLETION OF SECTION V.

Status		Substance Currently or Last Stored				Fire	Safety	Permit
C	Currently in Use	A	Gasoline	G	Used Motor Oil	Y	Yes	
T	Temporarily Out of Use	B	Diesel	H	Aviation	N	No	
P	Permanently Out of Use	C	Gasohol	I	Hazardous Substance			
		D	Kerosene	J	Other			
		E	Heating Oil	K	Unknown			
		F	New Motor Oil	L	Mixture			

VI. CERTIFICATION (Read and Sign after completing all sections)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. This registration is conditioned upon compliance with provisions of the Storage Tank and Spill Prevention Act, with any regulations and orders issued pursuant to this Act, and with the requirements for obtaining a permit required under this Act.

Name and Official Title ~~XXXXXX~~
John G. Mowrer

Signature

Date Signed _____

Facilities Engineer & Safety Mgr.

e Signed
1/25/90